

**Part 12**  
**AIR OPERATOR CERTIFICATION AND ADMINISTRATION**

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## SUBPART A: GENERAL

### 12.001 APPLICABILITY

- (a) This Part prescribes requirements of Vietnam for the original certification and continued validity of Air Operator Certificates (AOC).
- (b) This Part applies to all persons and organizations that operate aircraft in commercial air transport that do not hold an AOC from another ICAO State:
  - (1) Within Vietnam, or
  - (2) International operations using aircraft registered in Vietnam.
- (c) <sup>1</sup>The Part also applies to:
  - (1) Persons performing duties of the operators in paragraph (b),
  - (2) Third parties performing work on behalf of the AOC holder.

### 12.003 DEFINITIONS

- (a) This Part, the following definitions shall apply:

*Note: Additional aviation-related terms are defined in Part 1 of these regulations.*

- (1) **Human Factors principles:** Principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance;
- (2) **Directly in Charge:** A person assigned to a position in which he or she is responsible for the work of a shop or station that performed maintenance, preventive maintenance, or modifications, or other functions affecting aircraft airworthiness;
- (3) **Manufacturer's maintenance programme (MPD):** A programme contained in the maintenance manual or maintenance instructions set forth by the manufacturer as required by the regulations for the aircraft, aircraft engine, propeller, rotor or item of emergency equipment;
- (4) **Competency in civil aviation:** This phrase means that an individual shall have a technical qualification and management experience acceptable to the CAAV for the position served;
- (5) **Equivalent system of maintenance:** An AOC holder may conduct maintenance activities through an arrangement with an AMO or may conduct its own maintenance, preventive maintenance, or alterations, so long as the AOC holder's maintenance system is approved by the Authority and is equivalent to that of an AMO, except that the certification for maintenance release of an aircraft or aircraft component shall be made by an appropriately licenced aviation maintenance technician or aviation repair specialists in accordance with Part 5 as appropriate;
- (6) **Integrated flight safety system:** A set of inter-related documentation established by the operator, compiling and organizing information necessary for flight and ground operations, and comprising, as a minimum, the operations manual and the operator's maintenance control manual;
- (7) **Operational control:** The exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of the safety of the aircraft and the regularity and efficiency of the flight;
- (8) **Operational flight plan:** The operator's plan for the safe conduct of the flight based on considerations of aeroplane performance, other operating limitations and relevant expected conditions on the route to be followed and at the aerodromes concerned;
- (9) **Human performance:** Human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations;
- (10) **Basic Air Taxi:** An operator of non-turbojet aircraft with a maximum passenger seating capacity of 9 or less passengers and/or:

<sup>1</sup> This content is revised according to Item 1, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (i) more than 5 aircraft and more than 3 different types of aircraft;
  - (ii) 05 pilots;
  - (iii) CAAV authorized representative;
  - (iv) Person related to good transportation specified on aircraft.
- (11) **Commuter Air Taxi:** An operator of non-turbojet aircraft with a maximum passenger seating capacity of 19 or less passengers and/or:
- (i) A fleet of more than 5 aircraft with a maximum capacity of 9 passengers or less;
  - (ii) A fleet of more than 3 different types of aircraft with a maximum capacity of 9 passengers or less; and/or
  - (iii) Operating 1 or more aircraft with a maximum passenger capacity of more than 9 passengers.
- (12) **Single Pilot Air Taxi:** An operator of non-turbojet aircraft having a maximum certificated configuration for nine or less passengers, that has no more than:
- (i) 1 aircraft; and
  - (ii) 1 pilot-in-command.
- (13) **Air Taxi AOC Holder:** This term applies to operators of aircraft with a maximum passenger seating capacity of 19 or less passengers. For AOC certification purposes, there are three general groupings of these air operators which involve differing requirements based on the complexity of the operation. These groupings are
- (i) Single pilot air taxi;
  - (ii) Basic air taxi; and
  - (iii) Commuter.
- (14) **Aircraft Technical Log.:** A document attached to an aircraft for recording defects and malfunctions discovered during operation and for recording details of all maintenance carried out whilst the aircraft is operating between scheduled visits to the base maintenance facility. It also contains operating information relevant to flight safety and maintenance data that the operating crew need to know;
- (15) **Ground handling:** Services necessary for an aircraft's arrival at, and departure from, an aerodrome, other than air traffic services.
- (16) **Maintenance control manual:** A document which describes the operator's procedures necessary to ensure that all scheduled and unscheduled maintenance is performed on the operator's aircraft on time and in a controlled and satisfactory manner.
- (17) **Maintenance organization's procedures manual:** A document endorsed by the head of the maintenance organization and approved by the CAAV which details the maintenance organization's structure and management responsibilities, scope of work, description of facilities, maintenance procedures and quality assurance or inspection systems;
- (18) **Cargo aircraft:** Any aircraft carrying goods or property but not passengers. In this context the following are not considered to be passengers:
- (i) A crew member;
  - (ii) An operator's employee permitted by, and carried in accordance with, the instructions contained in the Operations Manual (OM);
- (19) **Flight recorder:** Any type of recorder installed in the aircraft for the purpose of complementing accident/incident investigation;
- (20) **Interchange agreement:** A leasing agreement which permits an air carrier to dry lease and take or relinquish operational control of an aircraft at an aerodrome;
- (21) **Holdover time:** The estimated time de-icing/anti-icing fluid will prevent the formation of frost or ice and the accumulation of snow on the protected surfaces of an aircraft;
- (22) **Certification of completion of maintenance:** A document certifying maintenance work has been carried out correctly in accordance with the approved data and the processes in the maintenance exposition organization manual equivalent system.

## 12.005 DEFINITIONS

- (a) This Part, the following definitions shall apply:
  - (1) AOC: Air Operator Certificate;
  - (2) AMO: Approved Maintenance Organization;
  - (3) ATP: Air Transport Pilot;
  - (4) CDL: Configuration Deviation List;
  - (5) IMC : Instrument Meteorological Conditions;
  - (6) MEL: Minimum Equipment List;
  - (7) TVE: Total Vertical Error.

## SUBPART B: AIR OPERATOR CERTIFICATE

### 12.010 COMPLIANCE WITH AN AIR OPERATOR CERTIFICATE

- (a) No operator may operate an aircraft in commercial air transport unless that operator holds an AOC for the operations being conducted.
- (b) No person may operate an aircraft in commercial air transport operations that are not authorised by the terms and conditions of its AOC.
- (c) <sup>2</sup>The AOC holder shall, at all times, continue in compliance with the AOC terms, conditions of issuance, operations specifications and maintenance requirements in order to hold that certificate.

### 12.013 APPLICATION FOR AN AIR OPERATOR CERTIFICATE

- (a) An operator applying to the CAAV for an AOC shall submit an application:
  - (1) In a form and manner prescribed by the CAAV ;
  - (2) Containing any information the CAAV requires the applicant to submit

*Note: See Appendix 1 of 12.013 detailed guidance on application for aircraft operator certificate*
- (b) Each applicant shall make the application for an initial issue of an AOC at least 90 days before the date of intended operation, except the Operations Manual and Maintenance Control Manual which may be submitted later than but not less than 60 days before the date of intended operation.
- (c) Within 15 days after receiving application from the operator, the CAAV will evaluate the validity and completeness of the AOC applicant and inform evaluation results for the applicant. In case of request for AOC issuance is invalid or incomplete, the applicant must provide addition and the time for AOC approval will only be counted from when the application is added as required.
- (d) Within 15 days from the date of notification of the validity and completeness of the AOC application, the CAAV shall check the contents of documents and coordinate with the aircraft operator to develop inspection plans.
- (e) <sup>3</sup> Within 40 days from the agreement time on inspection plan, CAAV shall examine, if the test results shows that the applicant fully meets the requirements for provisions of this Section, CAAV issues aircraft operator certificate. In the case, it did not meet the specific requirements, the CAAV will announce results for the applicant and the agreed period for the requirements correction have not been met. Time required for the requirements correction have not been met will be added at the time of certifying AOC
- (f) The applicant for single pilot air taxi must be filed at least 30 days before the intended operation.
- (g) Within 7 working days after receiving operator application, CAAV to evaluate the validity and completeness of the dossiers to certify the single pilot air taxi and inform the evaluation results for the applicant. In case of the request for AOC single pilot air taxi is invalid or incomplete, the

<sup>2</sup> This content is revised according to Item 2, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>3</sup> This content is revised according to Item 1, Appendix VIII to Circular 56/2018/TT-BGTVT dated 30 Jan 2019.



applicant must provide additions and AOC approval time flight operation for single pilot air taxi will only be counted since the dossier was added at the request.

- (h) Within 3 working days from the date of receipt of complete dossiers, CAAV shall check the contents of documents and coordinate with single pilot air taxi to build the test plan.
- (i) <sup>4</sup> Within 15 days from the time agree on inspection plan, CAAV shall conduct exam, if the test results show that the proposal fully meets the requirements for provisions of this Section, CAAV to certify the single pilot air taxi. In the case did not meet the specific requirements, the CAAV will announce results for the applicant and the agreed period for the correcting requirements have not been met. Time required for the correcting requirements have not been met will be added to the AOC time.

#### **12.015 ISSUANCE OR DENIAL OF AOC**

- (a) The CAAV may issue an AOC if, after investigation, the Authority finds that the applicant:
  - (1) Is a citizen of Vietnam;
  - (2) Has its principal place of business and its registered in Vietnam;
  - (3) Meets the applicable regulations and standards for the holder of an AOC and has no AOC issued by other member states at the time of proposal;
  - (4) Is properly and adequately equipped for safe operations in commercial air transport and maintenance of the aircraft;
  - (5) Holds the economic authority issued by Vietnam under the provisions of the Civil Aviation Law, and
  - (6) Has paid the fee required by the law, and.
- (b) The CAAV may deny application for an AOC if finds that:
  - (1) The applicant is not properly or adequately equipped or is not able to conduct safe operations in commercial air transport;
  - (2) The applicant previously held an AOC which was revoked; or
  - (3) An individual is employed for a critical role as in 12.060 contributed to the circumstances causing the revocation process of an AOC obtains a substantial ownership or is employed in a position required by this regulation.

#### **12.017 CONTENTS OF AIR OPERATOR CERTIFICATE (AOC)**

- (a) The AOC will consist of two parts:
  - (1) Part 1 of certificate stamped and signed by the Authority,;
  - (2) Part 2 includes AOC operations specifications containing the areas of operations, type of aircraft, specific authorizations, conditions and limitations applicable to the AOC.
- (b) The CAAV will issue an AOC which will contain:
  - (1) The name and location (main place of business) of the AOC holder;
  - (2) The date of issue and period of validity for each page issued;
  - (3) A description of the type of operations authorised;
  - (4) The type(s) of aircraft(s) authorised for use;
  - (5) The authorised areas of operations and/or routes; and
  - (6) Other special authorisations, approvals and limitations issued by the CAAV in accordance with the standards which are applicable to the operations and maintenance conducted by the AOC holder.
- (c) <sup>5</sup>For each fleet of aircraft type and authorisation, the CAAV will issue the following documents for placement in the flight deck of each aircraft operated by the AOC holder:

<sup>4</sup> This content is revised according to Item 1, Appendix VIII to Circular 56/2018/TT-BGTVT dated 30 Jan 2019.

<sup>5</sup> This content is revised according to Item 3, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (1) A CAAV certified true copy of the AOC; and
  - (2) A copy of the authorizations, conditions and limitations for that fleet of aircraft.
  - (3) Requirements for a certified true copy of an aircraft display AOC as prescribed by Appendix I and II to 12.017.
- (d) The documents issued paragraph (c) will issued in English translation.

#### **12.020 DURATION OF AN AIR OPERATOR CERTIFICATE**

- (a) An AOC, or any portion of the AOC, issued by the CAAV is effective for 12 calendar months unless:
- (1) The CAAV amends, suspends, revokes or otherwise terminates the certificate;
  - (2) The AOC holder surrenders it to the CAAV; or
  - (3) The AOC holder suspends operations for more than 60 days.

#### **12.023 AMENDMENT OF AN AIR OPERATOR CERTIFICATE**

- (a) The CAAV may amend any if:
- (1) It is determined that safety in commercial air transport and the public interest require the amendment; or
  - (2) The AOC holder applies for an amendment, and the CAAV determines that safety in commercial air transport and the public interest allows the amendment.
- (b) If the CAAV stipulates in writing that an emergency exists requiring immediate amendment in the public interest with respect to safety in commercial air transportation, such an amendment is effective without stay on the date the AOC holder receives notice.
- (c) An AOC holder may appeal the amendment, but shall operate in accordance with it, unless it is subsequently withdrawn.
- (d) Amendments proposed by the CAAV, other than emergency amendments, become effective 30 days after notice to the AOC holder, unless the AOC holder appeals the proposal in writing prior to the effective date. The filing of an appeal stays the effective date until the appeal process is completed.
- (e) Amendments proposed by the AOC holder shall be made at least 30 days prior to the intended date of any operation under that amendment.
- (f) An application for renewal of AOC must be submitted at least 30 days before the date of expiry of the AOC, unless otherwise agreed by the CAAV.
- (g) Within 7 days after receipt of the AOC renewal, amendment application from the operator, the CAAV will assess the validity and completeness of the record and notify the evaluation result to the applicant. In the case of the application is invalid or incomplete, the applicant must supplement and the AOC renewal, amendment time will only be counted from when the dossier is added as required.
- (h) Within 3 working days from the date of receipt of completed dossiers, CAAV shall check the contents of documents and coordinate with the aircraft operator to plan the actual test to renew or amend the AOC.
- (i) Within 20 days from the time agreed on the inspection plan, CAAV shall examine; if the test results show that the application fully meets the requirements for provisions of this Section, CAAV to renew or the AOC. In the case did not meet the specific requirements, the CAAV will announce results for the applicant and agree time limit for the correction requirements have not been met. Time required for the correction requirements have not been met will be added to their renewal or modify AOC.
- (j) None of the operator allowed to operate the type of commercial air transport required modification in the AOC, unless the operators have been approved by the CAAV.

*Note: See Appendix 1 of 12.023 instructions on amendments and supplements to the aircraft operator Certificate.*

*Note: See Appendix 2 of 12.023 instructions for renewal of aircraft operator Certificate.*

- (k) <sup>6</sup>In case of adding new aircraft to AOC, within 90 days from the proposed date of operation of new aircraft, AOC holder shall explain in written how to maintain operating resources (Flight crew, dispatcher, flight operation staff), aircraft repair and maintenance. Explanation shall be sent to CAAV for evaluation and approval.

## **SUBPART C: AOC CERTIFICATION**

### **12.030 INITIAL CERTIFICATION REQUIRED**

- (a) Prior to the issuance of an AOC, the applicant must be originally certificated in accordance with the system of certification for operation, aircraft maintenance in this regulations.
- (b) <sup>7</sup>The system of certification used by the CAAV shall require, at a minimum, that no AOC will be issued by the CAAV until the applicant has demonstrated that it has an adequate organisation, method of control and supervision of flight operations, training programme as well as ground handling and maintenance arrangements consistent with the nature and extent of the operations specified.

### **12.033 SUBSEQUENT REQUIRED<sup>8</sup>**

- (a) Unless addressed in the initial certification requirements, subsequent requests for the following amendments to AOC operating authority for the following require completion of a full certification process prior to operation:
- (1) Adding new variant aircraft;
  - (2) All weather operations, including Category II and III instrument approaches and low visibility takeoffs;
  - (3) Critical performance based navigation, e.g., RNP-1 navigation;
  - (4) Critical airspace operations, e.g., MNPS, NORPAC, RVSM, CPDLC, Polar;
  - (5) Extended diversion time operations (ETDO);
  - (6) Single-pilot night and IMC operations, as prescribed in Appendix 1 to 12.033;
  - (7) Single-engine turbine-powered night and IMC operations as prescribed in Appendix 2 to 12.033;
  - (8) Helicopter Class 3 as prescribed in Appendix 3 to 12.033.
  - (9) Any other complex authorization that may be prescribed by the CAAV.

### **12.035 DEMONSTRATION FLIGHTS**

- (a) <sup>9</sup>No person may operate an aircraft type in commercial air transport unless it first conducts satisfactory demonstration flights during the CAAV certification process in that aircraft type.
- (b) <sup>10</sup>No person may operate an aircraft in a designated special area, or using a specialised navigation system it first conducts a satisfactory demonstration and/or validation flight during the CAAV certification process.
- (c) Demonstration flights required by paragraph (a) shall be conducted in accordance with the regulations applicable to the type of operation and aircraft type used.
- (d) The CAAV may authorise deviations from this section if finds that special circumstances make full compliance with this section unnecessary.
- (e) This demonstration flight is not required for Single Pilot or Basic Air Taxi operators who receive their initial proficiency checks from authorised persons designated by the CAAV.

<sup>6</sup> This content is revised according to Item 1, Appendix IX to Circular 21/2017/TT-BGTVT dated 30 June 2017.

<sup>7</sup> This content is revised according to Item 4, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>8</sup> This content is revised according to Item 5, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>9</sup> This content is revised according to Item 6, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>10</sup> This content is revised according to Item 6, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

### **12.037 EXTENDED TIME OPERATIONS (EDTO)<sup>11</sup>**

- (a) No person may conduct ETDO operations unless the CAAV has completed a certification process and issued an approval for specific threshold times.
- (b) In making this AOC certification evaluation, the CAAV shall take into account the route to be flown, the anticipated operating conditions and the location of adequate enroute alternate aerodromes. The approval of these operations will consider the:
  - (1) Airworthiness certification of the aeroplane type;
  - (2) Reliability of the propulsion system;
  - (3) Operator's maintenance procedures;
  - (4) Operator's operating practices;
  - (5) Operator's flight dispatch procedures;
  - (6) Operator's crew training programme;
  - (7) Operating conditions; and
  - (8) Availability of enroute alternate aerodromes.
- (c) When approving the appropriate maximum diversion time for an operator for a particular aeroplane type engaged in extended diversion time operations, the CAAV shall ensure that:
  - (1) For all aeroplanes: the most limiting EDTO significant system time limitation, if any, indicated in the Aeroplane Flight Manual (directly or by reference) and relevant to that particular operation is not exceeded; and
  - (2) For aeroplanes with two turbine engines: the aeroplane is EDTO certified.
- (d) The CAAV shall, when approving maximum diversion times for aeroplanes with two turbine engines, ensure that the following are taken into account in providing the overall level of safety intended by the provision of ICAO Annex 8:
  - (1) Reliability of the propulsion system;
  - (2) Airworthiness certification for EDTO of the aeroplane type; and
  - (3) EDTO maintenance programme.

### **12.040 REDUCED VERTICAL SEPARATION CERTIFICATION**

- (a) No person may conduct RVSM operations unless the CAAV has completed a certification approval process for the specific aircraft or fleet of aircraft.
- (b) In making this certification evaluation, the CAAV shall take into account the route to be flown, the anticipated operating conditions and the suitability of the aircraft.
- (c) The AOC holder shall satisfy that:
  - (1) The vertical navigation performance capability of the aeroplane satisfies the specified requirements.  
*Note: See Appendix 1 to 12.040 for the required altimetry standards.*
  - (2) Has instituted appropriate procedures in respect of continued airworthiness (maintenance and repair) practices and programmes; and
  - (3) Has instituted appropriate flight crew procedures in the operations manual for operations in RVSM airspace.
- (d) The CAAV shall ensure that, prior to authorising RVSM operations for a specific aeroplane or fleet of aeroplanes, there are adequate provisions for:
  - (1) Receiving the reports of height keeping performance issued by the monitoring agencies RVSM; and
  - (2) Taking immediate corrective action for individual aircraft, or aircraft type groups, identified in such reports as not complying with the height-keeping requirements for operation in airspace where RVSM is applied.

<sup>11</sup> This content is revised according to Item 7, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

*Note: The procedures for Approval of the height-keeping is being done as the approval procedures for amendment, supplement maintenance exposition manual of the aircraft operator.*

#### **12.043 DANGEROUS GOODS AWARENESS & CERTIFICATION<sup>12</sup>**

- (a) No person may conduct any commercial air transport operation unless in compliance with the requirements of Part 18 regarding transportation of dangerous goods by air
- (b) Operators not seeking approval for transport dangerous goods by air shall establish as prescribed by the CAAV:
  - (1) A dangerous goods training programme that meets the requirements of this Part, Parts 14 and 18 and the Technical Instructions, Part 1, Chapter 4, Table 1-5, as appropriate; and
  - (2) Dangerous goods policies and procedures in its operations manual to meet, at a minimum, the requirements of Annex 18, the Technical Instructions and the Part 18 of these regulations to ensure that operator personnel can:
    - (i) Identify, reject and report undeclared dangerous goods, including COMAT classified as dangerous goods; and
    - (ii) Report dangerous goods accidents and incidents to the CAAV and the appropriate authorities of the State in which the accident or incident occurred.
- (c) Operators seeking approval for transport of dangerous goods by air shall complete a separate certification process must be completed as prescribed by the CAAV to ensure that the operator has demonstrated compliance with the Part 18 safety requirements for carriage of dangerous goods by air, with emphasis on the establishment of:
  - (1) A dangerous goods training programme that meets the requirements in the Technical Instructions, Part 1, Chapter 4, Table 1-4 and the requirements of this Part and Part 14 and 18, as appropriate; and
  - (2) Dangerous goods policies and procedures in its operations manual to meet, at a minimum, the requirements of Part 18 and the Technical Instructions to enable operator personnel to:
    - (i) Identify, reject and report undeclared or misdeclared dangerous goods, including COMAT, classified as dangerous goods;
    - (ii) Report dangerous goods accidents and incidents to the CAAV and the appropriate authorities of the State in which the accident or incident occurred;
    - (iii) Accept, handle, store, transport, load and unload dangerous goods, including COMAT, classified as dangerous goods as cargo on board an aircraft;
    - (iv) Provide the pilot-in-command with accurate and legible written or printed information concerning dangerous goods that are to be carried as cargo.
- (d) The AOC holder shall ensure that all personnel, including third-party personnel, involved in the acceptance, handling, loading and unloading of cargo are informed of the operator's operational approval and limitations with regard to the transport of dangerous goods.

#### **12.045 ADDITIONAL OPERATIONAL CERTIFICATION APPROVALS<sup>13</sup>**

- (a) Unless addressed in the initial certification, subsequent requests for the following approvals prior to operational use require completion of a certification process prescribed by the CAAV that includes validation or demonstration:
  - (1) Automatic landing systems;
  - (2) HUD (or equivalent) EVS, SVS, CVS, or any combination of these systems into a hybrid system;
  - (3) PBN variations, including RNP-APCH;

<sup>12</sup> This content is revised according to Item 8, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>13</sup> This content is revised according to Item 9, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (4) ADS-C, including CPDLC;
  - (5) ADS-B-IN and -OUT;
  - (6) RCP;
  - (7) EFB; and
  - (8) Other critical approvals identified by the CAAV or by changing international standards.
- (b) The operator shall make application for these operational approvals in the form and manner prescribed by the CAAV.

#### **12.047 OPERATIONAL VARIATIONS BASED ON SAFETY RISK ASSESSMENT<sup>14</sup>**

- (a) Notwithstanding a specific regulation requirement, the CAAV may, based on the results of a specific safety risk assessment conducted by the operator which demonstrates how an equivalent level of safety will be maintained to approve operational variations to the following requirements:
- (1) Alternate airport selection;
  - (2) Minimum fuel requirements;
  - (3) EDTO diversion requirements; and
  - (4) Use of a HUD or equivalent displays, EVS, SVS or CVS.
- (b) The operator shall make application for the variation in the form and manner prescribed by the CAAV.
- (c) Additional requirements relating the applications for these safety risk variations are prescribed in the Appendices 1, 2 and 3 to 12.047.

### **SUBPART D: SURVEILLANCE AND REVALIDATION AOC**

#### **12.050 CONTINUING VALIDATION OF THE CERTIFICATION BASIS REQUIRED<sup>15</sup>**

- (a) The AOC holder shall be subject to a continuing system of surveillance administered by the CAAV to validate the original certification basis.
- (b) The continued validity of an air operator certificate shall depend upon the operator maintaining the requirements for original issuance of the certificate under the supervision of the CAAV.

#### **12.053 ACCESS FOR INSPECTION**

- (a) In order for the CAAV to determine continued compliance with the applicable regulations as in this regulations, the AOC holder shall:
- (1) Grant the CAAV access to and co-operation with any of its organisations, facilities and aircraft;
  - (2) Ensure that the CAAV is granted access to and co-operation with any organisation or facilities that it has contracted for services associated with commercial air transport operations and maintenance for services; and
  - (3) Grant the CAAV free and uninterrupted access to the flight deck of the aircraft during flight operations.
- (b) The AOC holder shall provide to the CAAV a forward observer's position on each of the AOC holder's aircraft from which the flight crew's actions and conversations may be easily observed.
- Note: The suitability of the seat location and the ability to monitor crew member actions, conversations and radio communications is determined by the CAAV.*
- (c) The forward observer's position (seat, oxygen mask and interphone system) shall be operational at all times. In the event that the seat is determined not to be operational by the CAAV, the AOC holder will:
- (1) Provide a seat in the cabin for the CAAV, and

<sup>14</sup> This content is revised according to Item 10, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>15</sup> This content is added according to Item 2, Appendix IX to Circular 21/2017/TT-BGTVT dated 30 June 2017.



- (2) Make the necessary repairs to the forward observer's position within 3 days.
- (d) In cases where operators refuse to the CAAV authorized person approach the cockpit, and must promptly send an explaining report to the CAAV.

#### **12.055 CONDUCTING TESTS AND INSPECTIONS**

- (a) CAAV issue renewal of AOC when operator submit a complete dossier in accordance with regulations.
- (b) The AOC holder shall allow the CAAV to conduct tests and inspections, at any time or place, to determine whether an AOC holder is complying with the applicable laws, regulations and AOC terms and conditions.
- (c) The AOC holder shall make available at its principal base of operations:
  - (1) All portions of its current AOC;
  - (2) All portions of its Operations and Maintenance Manuals;
  - (3) A current listing that includes the location and individual positions responsible for each record, document and report required to be kept by the AOC holder under the applicable aviation law, regulations or standards.
- (d) The Single Pilot AOC holder shall send its records to the CAAV.
- (e) Failure by any AOC holder to make available to the Authority upon request, all portions of the AOC, Operations and Maintenance Manuals and any required record, document or report is grounds for suspension of all or part of the AOC by the CAAV.

#### **SUBPART E: AOC ADMINISTRATION**

#### **12.060 MANAGEMENT PERSONNEL REQUIRED FOR COMMERCIAL AIR TRANSPORT OPERATIONS**

- (a) The accountable manager must be acceptable to the CAAV, who has corporate authority for ensuring that all flight operations and maintenance activities can be financed and carried out to the highest degree of safety standards required by the CAAV.
- (b) <sup>16</sup>When conducting commercial air transport operations, the AOC holder shall have assigned persons who are responsible for management and supervision of the following areas:
  - (1) Flight operations;
  - (2) The maintenance system;
  - (3) Crew training;
  - (4) Ground operations;
  - (5) Safety.
- (c) <sup>17</sup>These persons shall have proven competency in civil aviation, be available and serving in their positions during operations of the AOC holder, and have equivalent administrative positions.
- (d) <sup>18</sup>The minimum initial qualifications for the flight operations postholder are:
  - (1) A valid ATP licence with the appropriate ratings for at least one of the aircraft used in the AOC holder's operations. If the ATP licence of the postholder is expired, the AOC holder shall nominate a deputy having appropriate ratings for at least one of the aircraft used in the AOC holder's operations;
  - (2) 3 years experience as PIC in commercial air transport operations of large aircraft.
- (e) <sup>19</sup>The minimum qualifications for the crew training postholder are:
  - (1) An ATP licence with the appropriate ratings for at least one of the aircraft used in the AOC holder's operations and have a valid flight instructor rating; and

<sup>16</sup> This content is added according to Item 3, Appendix IX to Circular 21/2017/TT-BGTVT dated 30 June 2017.

<sup>17</sup> This content is revised according to Item 3, Appendix IX to Circular 21/2017/TT-BGTVT dated 30 June 2017.

<sup>18</sup> This content is revised according to Item 11 (a), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>19</sup> This content is revised according to Item 11 (a), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (2) At least 3 years experience as PIC in commercial air transport operations.
  - (3) The CAAV may accept a commercial pilot licence with instrument rating in lieu of the ATP licence if the PIC requirements for the operations conducted require only a commercial certificate.
- (f) <sup>20</sup>The minimum entry qualifications for the postholder responsible for the maintenance system are:
  - (1) Be qualified in accordance with Part 5 and 7; and
  - (2) At least 3 years experience in aircraft maintenance.
- (g) <sup>21</sup>The minimum entry qualifications for the postholder responsible for the safety management system are: at least 3 years experience at management level in aircraft flight operations or aircraft maintenance and have adequate knowledge about safety management system;
- (h) <sup>22</sup>The minimum entry qualifications for the ground operations postholder: having experience and adequate knowledge about ground operations policy and procedures of the AOC holder.
- (i) <sup>23</sup>The managers to be approved by CAAV and other personnel responsible for operations control function shall:
  - (1) Have appropriate training, experience and proficiency;
  - (2) Comply with relevant legislation and safety requirements in operations;
  - (3) Have appropriate aviation knowledge:
    - (i) Safety standards and aircraft operations experience;
    - (ii) This regulations;
    - (iii) Approved operations ratings;
    - (iv) Requirements for maintenance and airworthiness;
    - (v) Operations manuals.
- (j) <sup>24</sup>An AOC holder shall:
  - (1) Describe in the general section of the flight operations manual the accountabilities and responsibilities of relevant personnel as required in this regulation.
  - (2) Provide name and business address of relevant personnel as required in this regulation.
  - (3) Report to CAAV of any change relating to the above positions.

### **12.063 BASE OF OPERATIONS**

- (a) The AOC holder that is not authorised to conduct maintenance under its AOC certificate shall maintain a principal base of operations and contract all maintenance to an AMO in accordance with Part 5 or equivalent.
- (b) The AOC holder that is authorised to conduct maintenance in accordance with Part 5 shall maintain a principal base of operations and maintenance.
- (c) An AOC holder may establish a main operations base and a main maintenance base at the same location or at separate locations.
- (d) The AOC holder shall provide written notification of intent to the CAAV at least 30 days before it proposes to establish or change the location of either base.
- (e) A Single pilot air taxi operator is not required to have an operations or maintenance base, but must identify the location and person assigned to retain its required records, and provide free and interrupted access to those records.

<sup>20</sup> This content is revised according to Item 11 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>21</sup> This content is revised according to Item 11 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>22</sup> This content is revised according to Item 11 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>23</sup> This content is revised according to Item 11 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>24</sup> This content is revised according to Item 11 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.



#### **12.065 FACILITIES**

- (a) The AOC holder shall maintain operational and airworthiness support facilities at the main operating base. Facilities must be appropriate for the area and type of operation.
- (b) The AOC holder shall arrange appropriate ground handling facilities at each aerodrome used to ensure the safe servicing and loading of its flights.
- (c) The Single pilot or Basic air taxi operator is not required to maintain support facilities or personnel, but must be present at the aircraft when support activities are being provided.

#### **12.067 FLIGHT SAFETY DOCUMENTS SYSTEM**

- (a) The AOC holder shall maintain a flight safety documents system that provides consistent policy and procedures to its personnel through an integrated manual system to ensure the highest degree of safety in the operations of the airline.
- (b) Each manual required by this Part shall:
  - (1) Include instructions and information necessary to allow the personnel concerned to perform their duties and responsibilities with a high degree of safety;
  - (2) Be in a form that is easy to revise and contains a system which allows personnel to determine the current revision status of each manual;
  - (3) Have a date of the last revision on each page concerned;
  - (4) Not be contrary to any applicable Vietnam regulation and the AOC holder's operations specifications; and
  - (5) Each manual will include a reference to appropriate civil aviation regulations.<sup>25</sup>
- (c) No person may cause the use of any policy and procedure for flight operations or airworthiness function prior to co-ordination with the CAAV.
- (d) The AOC holder shall submit the proposed policy or procedure to the CAAV at least 30 days prior to the date of intended implementation.

#### **12.068 PERFORMANCE OF WORK BY THIRD PARTIES<sup>26</sup>**

- (a) No AOC holder may have a third party perform work on their behalf unless that third party has been provided with the AOC holder's policies and procedures for the performance of that work.
- (b) Third parties performing work on behalf of the AOC holder shall use the policies and procedures of the AOC holder to perform that work.
- (c) The AOC holder shall include audits of the work performed by third parties in their quality assurance program to ensure that the work performed was accomplished in accordance with the AOC holder's policies and procedures.

#### **12.070 OPERATIONS SCHEDULES**

- (a) In establishing flight operations schedules, the AOC holder shall:
  - (1) Allow enough time for the proper servicing of aircraft at intermediate stops, and
  - (2) Consider the prevailing winds en route and cruising speed for the type of aircraft.
- (b) The cruising speed used for these schedules may not be more than that resulting from the specified cruising output of the engines.

#### **12.073 QUALITY SYSTEM AND QUALITY AUDIT PROGRAMME**

- (a) <sup>27</sup>The AOC holder shall establish a quality assurance programme as a part of its SMS programme and designate technically qualified auditor(s) who will monitor compliance with procedures required to ensure safe operational practices and airworthy aircraft. Compliance

<sup>25</sup> This content is revised according to Item 4, Appendix IX to Circular 21/2017/TT-BGTVT dated 30 June 2017.

<sup>26</sup> This content is revised according to Item 12, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>27</sup> This content is revised according to Item 13, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

monitoring shall include a feedback system to the accountable manager to ensure corrective action as necessary.

- (b) The AOC holder shall ensure that each quality system includes a quality assurance programme that contains procedures designed to verify that all operations are being conducted in accordance with all applicable requirements, standards and procedures.
- (c) The quality audit programme, and the quality auditor(s) manager, shall be acceptable to the CAAV.
- (d) The AOC holder shall describe the quality audit system in relevant documentation.
- (e) Notwithstanding (a) above, the CAAV may accept the nomination of two quality audit persons, one for operations and one for maintenance provided the AOC holder must designate a quality control department to ensure the compliance of the quality system is conducted in uniform with the entire operating process.
- (f) The Air Taxi AOC holder is not required to establish a quality audit programme but must under supervision of the CAAV or CAAV authorised persons.

#### **12.075 SAFETY MANAGEMENT SYSTEM**

- (a) <sup>28</sup>The AOC holder shall have a safety management system acceptable to the CAAV which implements requirements and framework specified in Subpart I of Part 1.
- (b) The AOC holder's safety management system shall clearly define lines of safety accountability throughout the operator's organization, including a direct accountability for safety on the part of senior management.
- (c) The AOC holder's safety management system shall include accident prevention responsibilities that include:
  - (1) Administration of a methodology for reporting, both anonymous or identifiable, and correction of possible safety issues and providing feedback to the operations personnel;
  - (2) Evaluation of adverse trends or patterns within the industry and the AOC holder;
  - (3) Conduct of safety briefings; and
  - (4) Issuance of operations bulletins regarding safety and standardization matters.
- (d) <sup>29</sup>The AOC holder shall establish and maintain a flight data analysis program as a part of its safety management system if it operates aeroplanes with a certificated take-off mass in excess of 20,000 kg or helicopters in excess of 7000 kg and/or more than 9 passengers when fitted with a flight data recorder.
  - (1) A flight data analysis program shall be non-punitive and contain adequate safeguards to protect the source(s) of the data
  - (2) An AOC holder may contract the operation of a flight analysis program to another party while retaining overall responsibility for the maintenance of such a program.
  - (3) The aircraft operator shall report to the CAAV monthly on the fleet operation under issued AOC.
  - (4) The records generated by the flight data program shall be restricted to uses identified in Section 7.090(h) and Appendix 1 to 7.090(h).
- (e) <sup>30</sup>An AOC holder shall, as part of its safety management system:
  - (1) Establish a flight safety documents system, for the use and guidance of operational and maintenance personnel, as part of its safety management system.

<sup>28</sup> This content is revised according to Item 5, Appendix IX to Circular 21/2017/TT-BGTVT dated 30 June 2017.

<sup>29</sup> This content is revised according to Item 5, Appendix IX to Circular 21/2017/TT-BGTVT dated 30 June 2017.

<sup>30</sup> This content is revised according to Item 14 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (2) Assess the level of rescue and fire fighting service (RFFS) protection available at any aerodrome intended to be specified in the operational flight plan in order to ensure that an acceptable level of protection is available for the aircraft intended to be used.

*Note: See Appendix 1 of 2.075 of report contents.*

#### **12.076 GROUND HANDLING ARRANGEMENTS<sup>31</sup>**

- (a) The AOC holder shall have an organisational structure acceptable to the CAAV which includes the responsibilities and authority for the management of all ground handling functions, including:
  - (1) Ramp operations;
  - (2) Passenger services;
  - (3) Baggage services;
  - (4) Cabin services;
  - (5) Weight and balance control;
  - (6) Ground support equipment; and
  - (7) Fuel services.
- (b) In addition to the aircraft-specific manuals, AOC holder shall have an Aircraft Handling manual acceptable to the CAAV which includes, for all ground handling operations:
  - (1) Handling processes, procedures and practices;
  - (2) Training programme requirements; and
  - (3) Subcontracting policies.
- (c) The AOC holder shall have processes acceptable to the CAAV for continuously ensuring the proper and adequate ground handling for their aircraft when all or part of the functions and tasks related to ground handling services have been contracted to a service provider.
- (d) The AOC holder shall provide to the CAAV a current and acceptable list of the service providers and the functions they have been contracted to perform on behalf of the AOC holder sorted by airport location.
- (e) <sup>32</sup>Validity of approval for ground handling service providers and agreement shall not exceed 02 years.

#### **12.077 SECURITY PROGRAMME**

- (a) The AOC holder shall have a security programme to ensure that:
  - (1) All appropriate personnel are familiar, and comply with, the relevant requirements of the national security programmes of Vietnam;
  - (2) These employees are acquainted with preventive measures and techniques in relation to passengers, luggage, cargo, mail, equipment, stores and supplies intended for carriage on an aircraft so that they contributed to the prevention of acts of sabotage or other forms of unlawful interference;
  - (3) These personnel are able to take appropriate action to prevent acts of unlawful interference such as sabotage or unlawful seizure of aircraft and to minimise the consequences of such events should they occur;
  - (4) A report of unlawful inference with a crew member is made, without delay, to the designated local authority and the CAAV;
  - (5) That all aircraft carry a checklist of the procedures to be followed for that type aircraft in searching for concealed weapons, explosives, or other dangerous devices, the procedures must be appropriate with the aircraft type.

<sup>31</sup> This content is revised according to Item 15, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>32</sup> This content is revised according to Item 6, Appendix IX to Circular 21/2017/TT-BGTVT dated 30 June 2017.

- (6) This checklist shall be supported by guidance:
  - (i) On the course of action to be taken should a bomb or suspicious object be found, and
  - (ii) Information on the least-risk location specific to the aircraft.
- (7) If any weapons are removed from the passengers or accepted for such carriage, there shall be a procedure in the Operations Manual regarding the proper method to stow such weapons in a place so that they are inaccessible to any person during flight time.

## **SUBPART F: AOC HOLDER RECORDS**

### **12.079 APPLICABILITY<sup>33</sup>**

- (a) This Subpart outlines the primary records requirements associated with AOC holders and the international standards. The records of this Subpart are not all-inclusive of the forms and records that are required by other applicable aviation regulations for the intended operations.
- (b) All records in this Subpart should conform to any content and retention requirement.

### **12.080 RECORD COMPLETION REQUIREMENTS**

- (a) The AOC holder shall ensure that all records required to be completed under this Subpart:
  - (1) For qualification and experience of that personnel or airworthiness, prior to the use of the person, aircraft or component in commercial air transport operations;
  - (2) For all other records, as the necessary information is provided to the person designated to complete the record.
- (b) The AOC holder shall ensure that its procedures for providing information to the persons designated to complete a specific record are provided in a timely way so that the record is continuously up-dated and available for consideration for the planning and conduct of commercial air transport operations.
- (c) The person(s) designated to complete a specific record shall be given that designation in writing and provided training with respect to timing and accuracy.
- (d) Each person designated to complete and/or sign a record required under this Subpart shall make the required entries accurately and in a timely manner so that the record used for planning and conduct of commercial air transport reflects the true situation at the time of use.
- (e) Each record required for operations and maintenance purposes shall be completed in ink or indelible pen, unless otherwise approved by the CAAV.

### **12.081 RETENTION OF REQUIRED RECORDS<sup>34</sup>**

- (a) The AOC holder shall retain the records that are required for the minimum times specified in this Part and summarized in Appendix 1 to 12.081.

### **12.083 PERSONNEL RECORDS: GENERAL<sup>35</sup>**

- (a) The AOC holder shall maintain current records which detail the qualifications and training of all its employees, and contract employees, involved in the operational control, flight operations, ground operations and maintenance.
- (b) The AOC holder shall maintain records for those employees performing crew member or operational control duties in sufficient detail to determine whether the employee meets the experience and qualification for duties in commercial air transport operations.
- (c) This record, its contents, layout and the procedures for its use shall be approved by the CAAV prior to its use in commercial air transport.
- (d) This record shall be identifiable to the AOC holder and the specific individual.

<sup>33</sup> This content is revised according to Item 16, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>34</sup> This content is revised according to Item 17, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>35</sup> This content is revised according to Item 18, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (e) This record shall be retained by the AOC holder in safe custody for at least 6 months after the individual no longer employed by the AOC holder.
- (f) The CAAV will also consider approval of a computer-based method for keeping any portion of this information. Without this CAAV approval, any such computer records used by the AOC holder shall be secondary to the approved method in priority of updating and usage at the operational level.

#### **12.085 MAINTENANCE PERSONNEL QUALIFICATION, EXPERIENCE AND CURRENCY RECORDS**

- (a) The AOC holder, which is authorised to conduct maintenance, shall have a record of the maintenance person's qualification, experience and currency that includes confirmation that these persons are current and qualified as required by relevant Parts of this aviation regulations.

#### **12.087 LOAD CONTROLLER QUALIFICATION, EXPERIENCE AND CURRENCY RECORDS**

- (a) The AOC holder shall have a record of the load controller's qualification, experience and currency that includes confirmation that these persons are current and qualified as required by relevant Parts of this set of aviation regulations.

#### **12.090 FLIGHT CREW QUALIFICATION, EXPERIENCE AND CURRENCY RECORDS**

- (a) The AOC holder shall have a record of the flight crew member's qualification, experience and currency that includes confirmation that these persons are current and qualified as required by relevant Parts of this set of aviation regulations.
- (b) Each flight crew member shall be provided a current summary record showing their completion of initial and recurrent qualification requirements.

#### **12.093 CABIN CREW QUALIFICATION, EXPERIENCE AND CURRENCY RECORDS**

- (a) The AOC holder shall have a record of the cabin crew member's qualification, experience and currency that includes confirmation that these persons are current and qualified as required by relevant Parts of this set of aviation regulations.
- (b) Each cabin crew member shall be provided a current summary record showing their completion of initial and recurrent qualification requirements.

#### **12.095 CREW DUTY AND FLIGHT TIME RECORDS**

- (a) The AOC holder shall have a record of the flight and cabin crew members' assigned and actual duty and flight time and minimum rest periods with respect to all Part 15 requirements for these crew members.

#### **12.097 COSMIC RADIATION DOSE RECORDS**

- (a) The AOC holder shall maintain records which would allow the total cosmic radiation dose received by their crew members over the previous 12 calendar months to be determined.

#### **12.100 OPERATIONAL CONTROL PERSONNEL QUALIFICATION RECORDS**

- (a) The AOC holder shall have a record of the qualification of its operational control personnel with respect to Part 14 and 16 requirements for these persons.

#### **12.103 JOURNEY/TECHNICAL LOG**

- (a) <sup>36</sup>The AOC holder shall maintain, on each aircraft, a technical log that contains the record of all servicing of fuel and oil, defects, trend monitoring and maintenance tasks and tests on that aircraft during the course of its operations.
- (b) <sup>37</sup>This log, its contents, layout and procedures for its use shall be approved by the CAAV prior to its use in commercial air transport. The contents of the Aircraft Technical Logbook are prescribed in the Appendix 1 to 12.103.

<sup>36</sup> This content is revised according to Item 19, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (c) Each page shall be identifiable to the AOC holder, separately numbered with a unique number and shall be arranged chronologically in a bound document.
- (d) This uniquely numbered will be assigned to a specific aircraft operated by the AOC holder until all pages are used.
- (e) Each page should be numbered at least three copies: 1 original white color, and other relevant of the separate color.
- (f) This document shall be retained by the AOC in safe custody for at least twelve months after the last date of the records contained in it.
- (g) If the AOC holder desires to use a different methodology, it must submit the forms and procedures to the CAAV for technical evaluation and approval, prior to use of the different methodology in commercial air transport.

#### **12.104 FUEL & OIL RECORDS<sup>38</sup>**

- (a) An AOC holder shall maintain fuel records to substantiate that, for each flight, the related requirements for fuel supply and adequate servicing have been met.
- (b) If the AOC holder does not use the Aircraft Technical Log as the primarily record keeping method, the actual method to be used must be approved separately by the CAAV.
- (c) An AOC holder shall maintain oil records to substantiate that, for each flight, is continuously ascertaining that trends for oil consumption are such that an aircraft has sufficient oil to complete each flight.
- (d) Fuel and oil records shall be retained by the operator for a period of three calendar months.

#### **12.105 AIRCRAFT ENGINE, APU, PROPELLER AND MODIFICATION LOGBOOKS**

- (a) The AOC holder shall have Aircraft/Engine/APU/Modification Logbooks which include records of maintenance, check, inspections, repair, and modification activities performed on the aircraft.
- (b) This log, its contents, layout, aircraft history, engine,APU and logbook aircraft improvement and record method shall be approved by the CAAV as in Part 20.
- (c) Each page shall be identifiable to the AOC holder, separately numbered with a unique number and shall be arranged chronologically.
- (d) This uniquely numbered, bound document will be assigned to a specific aircraft operated by the AOC holder until all pages are used.
- (e) This document shall be retained by the AOC holder in safe custody as long as the aircraft is still in service with the AOC holder and 12 months after aircraft has been permanently withdrawn from service or destroyed.
- (f) If the AOC holder desires to use a different methodology, it must submit the forms and procedures to the CAAV for technical evaluation and approval, prior to use of the different methodology in commercial air transport.

#### **12.107 DEFERRED DEFECTS SUMMARY**

- (a) The AOC holder shall have on each aircraft, a log of the deferred defects for that aircraft. This is attached to or aligned with the Aircraft Technical Log.
- (b) This log may be included in the printed Aircraft Technical Log or attached in some manner to the cover of that log and will include the information prescribed by the CAAV.

#### **12.110 AIRCRAFT INSPECTION AND CONDITION SUMMARY RECORD**

- (a) The AOC holder operating air taxi aircraft not required to be maintained under a Continuous Airworthiness programme shall provide on each aircraft operated, a summary record of that aircraft's airframe, engine, propellers, components and equipment current maintenance and condition with respect to:

<sup>37</sup> This content is revised according to Item 19, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>38</sup> This content is revised according to Item 20, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.



- (1) Required inspections;
  - (2) Required replacement times; and
  - (3) Airworthiness Directive compliance (AD).
- (b) This record will be in form and manner acceptable to the CAAV.

#### **12.113 LOAD AND PERFORMANCE PLANNING RECORDS**

- (a) The AOC holder shall have an aircraft-specific load manifest to summarize the mass and balance and performance calculations for each flight in commercial air transport.
- (b) <sup>39</sup>Load control sheet, its contents and procedures for its use shall be approved by the CAAV prior to use in commercial air transport.
- (c) Each page of the load control sheet shall have a sign be identifiable of the AOC holder.
- (d) Each page must be numbered in two copies: one original and one joint can be removed for storage.
- (e) The AOC must keep the mentioned document, passenger information and cargo waybills safe for at least 3 months.

*Note: See Appendix 1 of 12,113 for details on planning content for the load balancing and calculation.*

#### **12.115 OPERATIONAL FLIGHT PLANNING RECORDS**

- (a) The AOC holder shall have an operational flight planning document to record the planned route information, minimum fuel calculations, applicable weather conditions and NOTAMs and alternate aerodrome selections for each flight in commercial air transport.
- (b) The flight planning documents, document content, use guidance, record method must be listed in the the operational manual (OM) prior using in commercial transport. Flight planning document can be made electronically but must meet the provisions of this Article.
- (c) Each page shall be identifiable to the AOC holder, separately numbered with a unique number and shall be arranged chronologically in a bound document.
- (d) Each numbered page shall be provided in duplicate; 1 original page and 1 carbonless, detachable page.
- (e) This uniquely numbered, bound document will be assigned to a specific aircraft operated by the AOC holder until all pages are used.
- (f) This document, and the supporting documents, shall be retained by the AOC holder in safe custody for at least 3 months.
- (g) <sup>40</sup>If the AOC holder desires to use a different methodology, it must submit the forms and procedures to the CAAV for technical evaluation and approval, prior to use of the different methodology in commercial air transport.

*Note: See Appendix 1 of 12. 115 for details on the contents of the flight planning.*

#### **12.117 AIRCRAFT-SPECIFIC EMERGENCY AND SURVIVAL EQUIPMENT RECORDS**

- (a) The AOC holder shall at all times have available for immediate communication to rescue co-ordination centres, lists containing information on the emergency and survival equipment carried on board any of their aircraft engaged in commercial air transport:
- (b) This information shall include:
  - (1) Number, colour and type of life rafts and pyrotechnics;
  - (2) Details of emergency medical supplies;
  - (3) Water supplies and

<sup>39</sup> This content is revised according to Item 21, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>40</sup> This content is revised according to Item 22, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (4) Type and frequencies of the emergency portable radio.

#### **12.120 FLIGHT DECK VOICE AND FLIGHT DATA RECORDER RECORDS**

- (a) The AOC holder which operates aircraft required to have the flight voice and data recorders installed shall:
  - (1) Conduct operational checks and evaluations of flight recorder recordings to ensure the continued serviceability of the recorders;
  - (2) Retain the most recent flight data recorder calibration, including the recording medium from which this calibration is derived; and
  - (3) The AOC holder must retain the flight data recorder correlation for one aircraft of any group of aircraft operated:
    - (i) That are of the same type;
    - (ii) The model flight recorder and its installation are the same; and
    - (iii) There is no difference in type design with respect to the original installation of instruments associated with the recorder.
- (b) In the event that the aircraft becomes involved in an accident or occurrence requiring immediate notification of the CAAV, the AOC holder shall remove and keep recorded information from the flight deck voice recorder and flight data recorder in safe custody pending their disposition as determined by the CAAV.

#### **SUBPART G: AIRCRAFT**

##### **12.130 AUTHORISED AIRCRAFT**

- (a) No person may operate an aircraft in commercial air transport unless that aircraft has an appropriate current airworthiness certificate, is in an airworthy condition, and meets the applicable airworthiness requirements for these operations, including those related to identification and equipment.
- (b) No person may operate any specific type of aircraft in commercial air transport until it has completed satisfactory initial certification, which includes the issuance of an AOC amendment listing that type of aircraft.
- (c) No person may operate additional or replacement aircraft of a type for which it is currently authorised unless it can show that each aircraft has completed an evaluation process for inclusion in the AOC holder's fleet.

##### **12.133 EMERGENCY EVACUATION DEMONSTRATION**

- (a) <sup>41</sup>No person may use an aircraft type and model in commercial air transport passenger-carrying operations unless there is acceptable evidence that actual full capacity emergency evacuation was successfully demonstrated in 90 seconds or less.
- (b) <sup>42</sup>If a full capacity demonstration is not required, an operator may operate an aircraft type and model in commercial air transport passenger-carrying operations only after it has first demonstrated to the CAAV that its available personnel, procedures and equipment could provide sufficient open exits for evacuation in 15 seconds or less.
- (c) <sup>43</sup>The emergency evacuation demonstration shall include an assessment of the adequacy of aircraft emergency procedures, crew member emergency evacuation training and emergency equipment.
- (d) This demonstration is not required for aircraft configured for 19 or less passengers unless the CAAV determines that there is an operational need for this evaluation.

<sup>41</sup> This content is revised according to Item 23, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>42</sup> This content is revised according to Item 23, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>43</sup> This content is revised according to Item 23, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.



#### **12.135 DITCHING DEMONSTRATION**

- (a) No person may use a land plane in operations over areas where life rafts are required equipment unless they have first demonstrated to the CAAV that it has the ability and equipment to efficiently carry out their ditching procedures.

#### **12.136 DRY LEASING OF AIRCRAFT<sup>44</sup>**

- (a) An AOC holder may be approved by the CAAV to dry lease an aircraft for the purpose of commercial air transportation provided that the following conditions are met:
  - (1) The AOC holder provides the CAAV with a copy of the dry lease agreement to be executed;
  - (2) The AOC holder has operational control of the aircraft during the period of the lease;
  - (3) Dispatch and/or flight watch functions are performed by the AOC holder;
  - (4) The flight and cabin crew members are trained, qualified and scheduled by the AOC holder; and
  - (5) The maintenance arrangements are acceptable to the CAAV.
- (b) The dry lease agreement shall be explicit concerning the:
  - (1) Entity that has operational control, with the authority for initiating and terminating flights;
  - (2) Responsibility for crew training, qualification and scheduling;
  - (3) Maintenance and servicing of aircraft, including the Maintenance programme that will used;
  - (4) Minimum Equipment List that will be used.

#### **12.137 DRY LEASING OF FOREIGN REGISTERED AIRCRAFT**

- (a) <sup>45</sup>An AOC holder may be approved by the CAAV to dry-lease a foreign-registered aircraft for commercial air transport in accordance with the requirements of this Section and Section 12.136.
- (b) No person may be approved to operate a foreign registered aircraft unless:
  - (1) The Authority has determined the extent of the State of Registry's arrangements for continuing airworthiness for the type of operation.
  - (2) The Authority will have free and uninterrupted access, both in Vietnam and at any international location, to the:
    - (i) Aircraft on the ramp and during flight time;
    - (ii) Maintenance and operations facilities;
    - (iii) Maintenance and operations personnel;
    - (iv) Training facilities and simulators used.
  - (3) The aircraft must be operated in accordance with the regulations applicable to Vietnam AOC holders, and
  - (4) The maintenance arrangements must result in the aircraft always being in compliance with the State of Registry requirements and the maintenance requirements applicable to Vietnam AOC holders.
- (c) The CAAV will consider, upon request, a continuing airworthiness agreement between the CAAV and the State of Registry under Article 83 bis to the State of Registry if that State will agree to transfer the necessary powers so that:
  - (1) the airworthiness regulations of Vietnam applicable to AOC holders are in force, and
  - (2) The agreement acknowledges that the CAAV shall have free and uninterrupted access to the aircraft at any place and any time.

<sup>44</sup> This content is revised according to Item 24, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>45</sup> This content is revised according to Item 25, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

#### **12.140 AIRCRAFT INTERCHANGE**

- (a) No person may interchange aircraft with another AOC holder without the approval of the CAAV.

#### **12.143 WET-LEASING**

- (a) No person may conduct wet-lease operations on behalf of another air operator except in accordance with the applicable laws and regulations of the country in which the operation occurs and the restrictions imposed by the CAAV.
- (b) No person may allow another entity or air operator to conduct wet-lease operations on its behalf unless:
  - (1) That air operator holds an AOC or its equivalent from a Contracting State that authorises those operations; and
  - (2) The AOC holder advises the CAAV of such operations and provides a copy of the AOC under which the operation was conducted for the CAAV.

### **SUBPART H: AOC FLIGHT OPERATIONS MANAGEMENT**

#### **12.150 APPLICABILITY**

- (a) This Subpart provides those certification requirements that apply to management of flight operations personnel and their functions.

#### **12.153 OPERATIONS MANUAL**

- (a) The AOC holder shall prepare for the operations personnel concerned, an Operations Manual (OM). This document is acceptable to and approved by the CAAV based on relevant and this set of aviation safety regulations.
- (b) The Operations Manual shall contain the overall company policies and procedures regarding the flight operations it conducts.
- (c) This manual shall be amended or revised as is necessary to ensure that the information contained therein is kept up-to-date.
- (d) The AOC holder shall issue the Operations Manual, or pertinent portions, together with all amendments and revisions to all personnel that are required to use it.
- (e) No person may provide for use of its personnel in commercial air transport any Operations Manual or portion of this manual which has not been reviewed and found acceptable or approved for the AOC holder by the CAAV.
- (f) The AOC holder shall ensure that the contents of the Operations Manual includes at least those subjects designated by the CAAV that are applicable to the AOC holder's operations, including any additional materials made mandatory by.

*Note: See Appendix 1 to 12.153 for contents of an operations manual.*

- (g) <sup>46</sup>The operations manual may be published in parts, as a single document, or as a series of volumes.
- (h) <sup>47</sup>The Single Pilot Air Taxi operator is not required to provide all contents of an Operations Manual, but must carry operations and maintenance information and completed forms prescribed by the CAAV in the aircraft during commercial air transport flights.
- (i) <sup>48</sup>*(Removed)*

#### **12.155 MANDATORY MATERIAL**

- (a) Upon receipt of material the CAAV prescribes as mandatory for inclusion in any portion of the Operations Manual, the AOC holder shall make the necessary amendments as soon as reasonably possible.

<sup>46</sup> This content is revised according to Item 26, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>47</sup> This content is revised according to Item 26, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>48</sup> This content is revised according to Item 7, Appendix IX to Circular 21/2017/TT-BGTVT dated 30 June 2017.

## 12.157 FATIGUE MANAGEMENT<sup>49</sup>

- (a) The prescriptive requirements for the purpose of managing fatigue are provided in Part 15. These requirements are based on historical principles and knowledge to ensure that flight and cabin crew members are performing at an adequate level of alertness.
- (b) The operator must, for the purposes of managing its fatigue-related safety risks in its operation, have approved in its operations manual:
  - (1) Flight time, flight duty period, duty period and rest period limitations that are within the prescriptive fatigue management regulations detailed in Part 15; or
  - (2) A Fatigue Risk Management System (FRMS) in for all operations; or
  - (3) An FRMS in compliance with the requirements of paragraph (b)(1) for part of its operations and the requirements of paragraph (e) for the remainder of its operations.
- (c) An operator that chooses to use the options outlined in (b)(1) or (b)(2) shall make application for approval of their FRMS in accordance with the requirements of Subpart E of Part 15.
- (d) <sup>50</sup>Once the operator's Fatigue Risk Management System (FRMS) has been approved by the CAAV, the operator shall:
  - 1. Integrate the FRMS into the operator's safety management system;
  - 2. Establish the maximum value of flight time, flight duty time, duty time and minimum value of the rest period;
  - 3. The FRMS system must ensure the safety level is equivalent to or better than the current fatigue management regulations before being allowed to replace part or all of the current regulations.

## 12.160 TRAINING PROGRAMME

- (a) The AOC holder shall ensure that all operations personnel are properly instructed in their duties and responsibilities and the relationship of such duties to the operation as a whole.
- (b) <sup>51</sup>The AOC holder shall establish and maintain a ground and flight training programme, approved by the CAAV, which ensures that all crew members and dispatchers are adequately trained to perform their assigned duties. The specific requirements of these programmes are contained in Part 14.
- (c) This manual shall contain the policies regarding general training, checking, and record keeping and the applicable curriculums.
- (d) The AOC holder shall have approval of the CAAV prior to using a training curriculum for the purpose of qualifying a crew member, or person performing operational control functions, for duties in commercial air transport, including:
  - (1) The types of aircraft on which the crew members serve;
  - (2) The ground and flight training facilities;
  - (3) The qualification of the instructors; and
  - (4) Knowledge and skills of human performance.
- (e) The AOC holder shall submit to the CAAV any revision to an approved training programme, and shall receive written approval from the CAAV before that revision can be used.
- (f) The Air Taxi AOC holder is required to conform to the training programme approved by the CAAV receive the proficiency and route checks from authorised persons designated by the CAAV.

<sup>52</sup>Notes: (removed).

<sup>49</sup> This content is revised according to Item 27, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>50</sup> This content is revised according to Item 2, Appendix VIII to Circular 56/2018/TT-BGTVT dated 30 Jan 2019.

<sup>51</sup> This content is revised according to Item 28, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>52</sup> This content is revised according to Item 28 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

### **12.163 AIRCRAFT OPERATING MANUAL**

- (a) The AOC holder or applicant shall submit proposed aircraft operating manuals for each type and variant of aircraft operated, containing the normal, abnormal and emergency procedures relating to the operation of the aircraft for approval by the CAAV.
- (b) Each Aircraft Operating Manual shall be based upon the aircraft manufacturer's data for the specific aircraft type and variant operated by the AOC holder and shall include specific operating parameters, details of the aircraft systems, and of the check lists to be used applicable to the operations of the AOC that are approved by the CAAV.
- (c) The contents of the manual shall observe human factors principles.
- (d) The AOC shall issue the Aircraft Operating Manual to the flight crew members and persons assigned operational control functions to each aircraft.
- (e) The Air Taxi AOC holder may use a current copy of the manufacturers pilot's operating handbook acceptable to the CAAV that must be carried on the aircraft.

<sup>53</sup>Notes: (removed).

### **12.165 APPROVED FLIGHT MANUAL**

- (a) The AOC holder shall update the aircraft's AFM or RFM as required by the State of Registry.
- (b) The AOC holder shall update their Aircraft Operating Manual (AOM) when any AFM or RFM revision affects information also contained in the AOM.

### **12.167 STANDARD OPERATING PROCEDURES (SOP)<sup>54</sup>**

- (a) The AOC holder shall establish, and keep current, standard operating procedures (SOPs) appropriate to the type and variant of aircraft provide guidance to flight operational personnel for the safe operation of the aircraft.
- (b) The AOC holder shall establish, and keep current, as an integral part of its SOPs:
  - (1) Aircraft-specific expanded checklists;
  - (2) Aircraft-specific condensed checklists
  - (3) Aircraft-specific operational profiles for maneuvers;
  - (4) Standard crew briefings; and
  - (5) Standard call-outs and responses.
- (c) The AOC holder shall not allow the use of SOPs and checklists described in paragraph (b) of this Section unless these documents have been approved by the CAAV.
- (d) The AOC holder shall ensure that approved SOPs and checklist procedures include each item necessary for flight crew members to check for safety before starting engines, taking off, or landing, and for engine and systems abnormalities and emergencies.
- (e) The AOC holder shall ensure that the SOPs and checklist procedures are designed so that a flight crew member will not need to rely upon their memory for items to be checked.
- (f)
- (g) The design and utilization of the SOPs and checklists shall observe relevant human factors principles.
- (h) The AOC holder shall ensure that its flight crews complete training for the use of the SOPs and checklists, including:
  - (1) Initial aircraft-specific training;
  - (2) Recurrent aircraft-specific training; and
  - (3) Aircraft specific differences training for variants of aircraft types.

<sup>53</sup> This content is revised according to Item 29, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>54</sup> This content is revised according to Item 30, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (i) The AOC holder shall ensure that the SOPs and checklists are readily usable in the cockpit of each aircraft in sufficient quantity for ground and flight operations
- (j)
- (k) The AOC holder shall require the flight crew shall be required to comply with the SOPs and checklists provided in accordance with paragraph (b) of this section when operating the aircraft.
- (l) The AOC holder shall establish and maintain a comprehensive flight crew standardization programme to ensure continuous conformance with the SOPs and checklists.

#### **12.170 MINIMUM EQUIPMENT LIST (MEL) AND CONFIGURATION DEVIATION LIST (CDL)**

- (a) The AOC holder shall provide for the use of the flight crew members, maintenance personnel and persons assigned operational control function during the performance of their duties, an MEL approved by the CAAV.
- (b) The MEL shall be specific to the aircraft type and variant which contains the circumstances, limitations and procedures for release or continuance of flight of the aircraft with inoperative
- (c) Where the State of Registry is not Vietnam, the CAAV shall ensure that the MEL does not affect the aeroplane's compliance with airworthiness requirements applicable in the State of Registry.
- (d) <sup>55</sup>Each AOC holder may provide for the use of flight crew, maintenance personnel and persons assigned operational control functions during the performance of their duties a Configuration Deviation List (CDL) specific to the aircraft type if one is provided and approved by the State of Design.
- (e) <sup>56</sup>An AOC Holder operations manual shall contain those procedures acceptable to the Authority for operations in accordance with the CDL requirements. Further guidance on the development of MEL manuals is prescribed in the Appendix 1 to 12.170.

#### **12.173 PERFORMANCE PLANNING MANUAL**

- (a) The AOC holder shall issue operating instructions and provide information on aeroplane climb performance with all engines operating and the loss of one engine to enable the PIC to determine the minimum runway length and climb gradient that can be achieved during the departure phase for the existing take-off conditions and intended takeoff techniques.
- (b) The AOC holder shall provide for the use of the flight crew members and persons assigned operational control functions during the performance of their duties, a performance planning manual acceptable to the CAAV.
- (c) <sup>57</sup>The performance planning manual shall be specific to aircraft type and variant which contains adequate performance information to accurately calculate the performance in all normal, abnormal and emergencies phases of flight operation. This information shall be based on the aircraft manufacturer's or other data, acceptable to the CAAV, and should be included in the operations manual.
- (d) The Air Taxi AOC holder may use the performance data provided in the current manufacturer's pilot operating handbook.

Notes: (removed)<sup>58</sup>.

#### **12.175 PERFORMANCE DATA CONTROL SYSTEM**

- (a) The AOC holder shall have a system approved by the CAAV for obtaining, maintaining and distributing to appropriate personnel current performance data for each aircraft, route and aerodrome that it uses.
- (b) The system approved shall provide current obstacle data, and take into account the charting accuracy of such obstacles, for departure and arrival performance calculations.

<sup>55</sup> This content is revised according to Item 31, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>56</sup> This content is revised according to Item 32, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>57</sup> This content is revised according to Item 32 (a), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>58</sup> This content is revised according to Item 32 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (c) The Air Taxi AOC holder is not required to have this system, but must make all calculations assuming there is a 50 feet obstacle at the end of the runway both departing and arriving.

Notes: (removed)<sup>59</sup>.

#### **12.177 AIRCRAFT LOADING AND HANDLING MANUAL**

- (a) The AOC holder shall provide an aircraft handling and loading manual acceptable to the CAAV for the use of the flight crew members, ground handling personnel and persons assigned operational control functions during the performance of their duties.
- (b) This manual shall be specific to the aircraft type and variant which contains the procedures and limitations for servicing and loading of the aircraft.
- (c) The Air Taxi AOC holder is not required to provide this manual.

Notes: (removed)<sup>60</sup>.

#### **12.180 MASS AND BALANCE DATA CONTROL SYSTEM**

- (a) The AOC holder shall have a system approved by the Authority for obtaining, maintaining and distributing to appropriate personnel current information regarding the mass and balance of each aircraft operated. This manual must be approved by the CAAV.

*Note: CAAV to consider license AOC for the aircraft operator is approving of operational manual (including obtaining, maintaining and distributing current mass and balance data of each aircraft...). When amend and supplement this manifest of operator shall apply the procedures for amendment, supplement of operational manual and maintenance of the aircraft operator.*

#### **12.183 CABIN ATTENDANT MANUAL**

- (a) The AOC holder shall issue to the cabin attendants and provide to passenger agents during the performance of their duties, a cabin attendant manual acceptable to the CAAV.
- (b) The cabin attendant manual shall contain those operational policies and procedures applicable to cabin attendants and the carriage of passengers.
- (c) The AOC holder shall issue to the cabin attendants, a manual specific to the aircraft type and variant which contains the details of their normal, abnormal and emergency procedures and the location and operation of emergency equipment..
- (d) The Air Taxi AOC holder is not required to provide this manual.

Notes: (removed)<sup>61</sup>.

#### **12.185 PASSENGER BRIEFING CARDS**

- (a) The AOC holder shall carry on each passenger carrying aircraft, in convenient locations for the use of each passenger, printed cards supplementing the oral briefing and containing:
  - (1) Location and methods of opening the emergency exits;
  - (2) How and when oxygen equipment is to be used (if carriage of oxygen is required);
  - (3) Location and use of individual floatation devices (where carriage is required);
  - (4) Other instructions necessary for use of the emergency equipment, and
  - (5) Information regarding the restrictions and requirements associated with sitting in an exit seat row.
- (b) The AOC holder shall ensure that each card contains information that is pertinent only to the type and variant of aircraft used for that flight.

*Note: See Appendix 1 to 12.185 for specific information to be included on passenger information cards.*

<sup>59</sup> This content is revised according to Item 29, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>60</sup> This content is revised according to Item 29, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>61</sup> This content is revised according to Item 29, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.



## 12.187 AERONAUTICAL DATA CONTROL SYSTEM

- (a) The AOC holder shall have a system for obtaining, maintaining and distributing to appropriate personnel current aeronautical data for each route and aerodrome that it uses. This system must be included in the OM.

*Note: See Appendix 1 to 12.187 for the specific aerodrome information to be contained in the aeronautical data control system.*

- (b) <sup>62</sup>The aeronautical data information system shall be capable of the provision of aeronautical information essential for the safety, regularity and efficiency of air navigation to the flight crew and operational personnel at any aerodrome authorized in the AOC and corresponding operations specifications.
- (c) <sup>63</sup>The aeronautical data information system shall include adequate procedures for preparation and dissemination to the flight crew and appropriate operations personnel, information contained in the:
- (1) Aeronautical Information Publication (AIP);
  - (2) Aeronautical Information Regulation and Control (AIRAC);
  - (3) Aeronautical Information Circular (AIC)
  - (4) Current NOTAMs; and
  - (5) Other information sources prescribed by the CAAV.
- (d) <sup>64</sup>The specific aerodrome information to be contained in the aeronautical data control system is prescribed in the Appendix 1 to 12.187.
- (e) <sup>65</sup>The Air Taxi AOC holder must comply with the requirements of Part 10 with regard to aeronautical data.

## 12.190 ROUTE GUIDE

- (a) The AOC holder shall provide a route guide and aeronautical charts approved by the CAAV for the use of the flight crew members and persons assigned operational control functions during the performance of their duties.
- (b) The route guide and aeronautical charts shall be current and appropriate for the proposed types and areas of operations to be conducted by the AOC holder..

Notes: (removed)<sup>66</sup>.

## 12.191 ELECTRONIC NAVIGATION DATA MANAGEMENT<sup>67</sup>

- (a) An operator shall not employ electronic navigation data products that have been processed for application in the air and on the ground unless the:
- (1) CAAV has approved the operator's procedures for ensuring that the process applied and the products delivered have met acceptable standards of integrity and that the
  - (2) Products are compatible with the intended function of the equipment that will use them.
- (b) The operator shall implement procedures to ensure proper monitoring of the process and products.
- (c) An operator shall implement procedures that ensure the timely distribution and insertion of current and unaltered electronic navigation data to all aircraft that require it.

## 12.193 WEATHER REPORTING SOURCES

- (a) The AOC holder shall use sources approved the CAAV for the weather reports and forecasts used for decisions regarding flight preparation, routing and terminal operations.
- (b) For passenger carrying operations on a published schedule, the AOC holder shall have an approved system for obtaining forecasts and reports of adverse weather phenomena that may affect safety of flight on each route to be flown and aerodrome to be used.

<sup>62</sup> This content is revised according to Item 33 (a), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>63</sup> This content is revised according to Item 33 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>64</sup> This content is revised according to Item 33 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>65</sup> This content is revised according to Item 33 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>66</sup> This content is revised according to Item 29, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>67</sup> This content is revised according to Item 34, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

Notes: (removed)<sup>68</sup>.

#### 12.195 DE-ICING AND ANTI-ICING PROGRAMME

- (a) The AOC holder planning to operate an aircraft in conditions where frost, ice, or snow may reasonably be expected to adhere to the aircraft shall:
  - (1) Use only aircraft adequately equipped for such conditions;
  - (2) Ensure flight crew is adequately trained for such conditions; and
  - (3) Have an approved ground de-icing and anti-icing program.

*Note: See Appendix 1 to 12.195 for detailed requirements pertaining to the AOC holder's de-icing program.*

#### 12.197 FLIGHT SUPERVISION AND MONITORING SYSTEM

- (a) For operations of turbojet aircraft with a gross weight of more than 5700 kg. The AOC holder shall have an adequate system approved by the Authority for proper supervision of the progress of the scheduled flights.
- (b) The dispatch and monitoring system shall have enough dispatch centres, adequate for the operations to be conducted, located at points necessary to ensure adequate flight preparation, dispatch and in-flight contact with the scheduled flight operations.
- (c) For scheduled operations, The AOC holder shall provide enough qualified personnel at each dispatch centre to ensure proper operational control of each flight.
- (d) <sup>69</sup>The operator shall establish an aircraft tracking capability to track aeroplanes throughout its area of operations.
- (e) <sup>70</sup>The operator shall track the position of an aeroplane at least every 15 minutes for the portion(s) of the in-flight operation(s) that is planned in an oceanic area(s) or a remote area(s) under the following conditions:
  - (1) the aeroplane has a maximum certificated take-off mass of over 27 000 kg and a seating capacity greater than 19; and
  - (2) where an ATS unit obtains aeroplane position information at greater than 15 minute intervals.

Note: Access to ATS aeroplane position data meets aeroplane tracking requirements.

- (f) <sup>71</sup>The operator shall establish procedures, approved by the CAAV, for the retention of aircraft tracking data to determine to assist SAR in determining the last known position of the aircraft.
- (g) <sup>72</sup>The CAAV may, based on the results of an approved risk assessment process implemented by the operator, allow for variations to automated reporting intervals other than paragraph (e) this Article provided that the process shall demonstrate how risks to the operation, resulting from such variations, can be managed and shall include at least the following:
  - 1. capability of the operator's operational control systems and processes, including those for contacting ATS units;
  - 2. overall capability of the aeroplane and its systems;
  - 3. available means to determine the position of, and communicate with, the aeroplane;
  - 4. frequency and duration of gaps in automated reporting;
  - 5. human factors consequences resulting from changes to flight crew procedures; and
  - 6. specific mitigation measures and contingency procedures.
- (h) <sup>73</sup>CAAV is based on specific instructions of ICAO as a basis for assessing requirements of aircraft operators as prescribed in paragraph g of this Article.

<sup>68</sup> This content is revised according to Item 29, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>69</sup> This content is revised according to Item 8, Appendix IX to Circular 21/2017/TT-BGTVT dated 30 June 2017.

<sup>70</sup> This content is revised according to Item 8, Appendix IX to Circular 21/2017/TT-BGTVT dated 30 June 2017.

<sup>71</sup> This content is revised according to Item 8, Appendix IX to Circular 21/2017/TT-BGTVT dated 30 June 2017.

<sup>72</sup> This content is revised according to Item 3, Appendix VIII to Circular 56/2018/TT-BGTVT dated 30 Jan 2019.

<sup>73</sup> This content is revised according to Item 3, Appendix VIII to Circular 56/2018/TT-BGTVT dated 30 Jan 2019



### **12.200 FLIGHT FOLLOWING OR FLIGHT LOCATING SYSTEMS**

- (a) For charter flight operations, The AOC holder shall have a system for providing flight preparation documents and determining the departure and arrival times of its flights at all aerodromes approved by the CAAV.
- (b) The system described in paragraph (a) shall have a means of communication by private or available public facilities to monitor the departure and arrival at all aerodromes, including flight diversions.
- (c) The Single Pilot and Basic Air Taxi operator is not required to have a flight following system for each flight in which an ATC flight plan is filed and remains active until arrival at destination.

Notes: (removed)<sup>74</sup>.

### **12.201 FUEL MANAGEMENT PROGRAMME<sup>75</sup>**

- (a) An operator shall establish a fuel management programme including policies and procedures, approved by the CAAV to ensure that in-flight fuel checks and fuel management are performed.
- (b) Operators should determine one final reserve fuel value for each aircraft type and variant in their fleet rounded up to an easily recalled figure.

### **12.203 COMMUNICATIONS FACILITIES**

- (a) The AOC holder's flights shall be able to have two-way radio communications with all ATC facilities along the routes and alternate routes to be used.
- (b) For passenger carrying operations on a published schedule, The AOC holder shall be able to have rapid and reliable radio communications with all flights over the AOC holder's entire route structure under normal operating conditions.
- (c) Any operations along routes and into aerodromes without rapid and reliable radio communications shall be approved by the CAAV prior to commercial air transport operations in this areas.

Notes: (removed)<sup>76</sup>.

### **12.205 ROUTES AND AREAS OF OPERATION**

- (a) An AOC holder may conduct operations only along such routes and within such areas for which:
  - (1) Ground facilities and services, including meteorological services, are provided which are adequate for the planned operation;
  - (2) The performance of the aircraft intended to be used is adequate to comply with minimum flight altitude requirements;
  - (3) The equipment of the aircraft intended to be used meets the minimum requirements for the planned operation;
  - (4) Appropriate and current maps and charts are available;
  - (5) If two-engine aircraft are used, adequate aerodromes are available with the time/distance limitations;and
  - (6) If single-engine aircraft are used, surfaces are available which permit a safe forced landing to be executed.
- (b) <sup>77</sup>No person may conduct commercial air transport operations on any route or area of operation unless those operations and maintenance are in accordance with paragraph (a) in this section.

### **12.207 NAVIGATIONAL ACCURACY**

- (a) The AOC holder shall have, for each proposed route or area, that the navigational systems and facilities it uses capable of navigating the aircraft:

<sup>74</sup> This content is revised according to Item 29, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>75</sup> This content is revised according to Item 35, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>76</sup> This content is revised according to Item 29, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>77</sup> This content is revised according to Item 36, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (1) Within the degree of accuracy required for ATC; and
  - (2) To the aerodromes in the operational flight plan within the degree of accuracy necessary for the operation involved.
- (b) In situations without adequate navigation systems reference, the CAAV may authorise day VFR operations that can be conducted safely by pilotage because of the characteristics of the terrain.
  - (c) The CAAV will list in the AOC holder's operations specifications non-visual ground aids required for approval of routes outside of controlled airspace, except for those navigational aids required for routes to alternate aerodromes.
  - (d) Non-visual ground aids are not required for night VFR operations on routes that the certificate holder shows have reliably lighted landmarks adequate for safe operation.
  - (e) Operations on route segments where the use of celestial or other specialised means of navigation shall be approved by the CAAV.

Notes: (removed)<sup>78</sup>.

#### **12.210 MINIMUM SAFE ALTITUDES<sup>79</sup>**

- (a) The AOC holder shall specify in its Operations Manual the method which will be used to determine minimum flight altitudes for operations conducted over routes for which minimum flight altitudes have not been established by the responsible State. In no case, shall the minimum flight altitudes be less than those specified in Part 10 of these regulations.
- (b) The CAAV will approve such method only after careful consideration of the probable effects of the following factors on the safety of the operation in question:
  - (1) The accuracy and reliability with which to determine the position of the aircraft;
  - (2) The inaccuracies in the indications of the altimeters;
  - (3) the characteristics of the terrain (e.g. sudden changes in elevation);
  - (4) The probability of encountering unfavourable meteorological conditions (e.g. severe turbulence and descending air currents);
  - (5) Possible inaccuracies in the aeronautical charts;
  - (6) Airspace restrictions;
  - (7) Part 10 of these regulations; and
  - (8) Any rules of the air applicable to the country being overflown.

#### **12.213 AERODROME/HELIPORT OPERATING MINIMA<sup>80</sup>**

- (a) <sup>81</sup>The AOC holder shall establish the aerodrome operating minima for each aerodrome or heliport to be used for commercial air transport operations involving takeoff, approach to landing and landing in accordance with a method of determination approved by the CAAV.
- (b) Such minima shall not be lower than any that may be established for such aerodromes by the State of the Aerodrome, except when specifically approved by that State.
- (c) <sup>82</sup>The CAAV will approve the AOC holder's method for establishing the aerodrome/heliport operating minima which will apply to any particular operation provide that full account of the following factors is taken:
  - (1) The type, performance and handling characteristics of the aircraft;
  - (2) The composition of the flight crew, their competence and experience;
  - (3) The dimensions and characteristics of the runways which may be selected for use and, for helicopters, the declared distances;

<sup>78</sup> This content is revised according to Item 29, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>79</sup> This content is revised according to Item 37, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>80</sup> This content is revised according to Item 38 (a), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>81</sup> This content is revised according to Item 38 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>82</sup> This content is revised according to Item 38 (c), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (4) The adequacy and performance of the available visual and non-visual ground aids;
  - (5) The navigation and/or control of the flight path during the approach to landing and the missed approach.
  - (6) The obstacles in the approach and missed approach areas and the obstacle clearance altitude/height for the instrument approach procedures;
  - (7) The means used to determine and report meteorological conditions; and
  - (8) The obstacles in the climb-out areas and necessary clearance margins.
- (d) <sup>83</sup>For helicopters: To ensure that an adequate margin of safety is observed in determining whether or not an approach and landing can be safely carried out at each alternate heliport or landing location, the operator shall specify appropriate incremental values for height of cloud base and visibility, acceptable to the CAAV, to be added to the operator's established heliport or landing location operating minima.

## **SUBPART I: AOC MAINTENANCE REQUIREMENTS**

### **12.220 APPLICABILITY**

- (a) This Subpart provides those certification and maintenance requirements that apply to an AOC holder's implementation of maintenance control.

### **12.223 MAINTENANCE RESPONSIBILITY**

- (a) <sup>84</sup>The AOC holder shall ensure that, in accordance with the procedures acceptable to the CAAV, and , if applicable the State of Registry:
  - (1) Each aircraft it is authorized to operate is maintained in an airworthy condition;
  - (2) The operational and emergency equipment necessary for an intended flight is serviceable; and
  - (3) The Certificate of Airworthiness of each aircraft remains fvalid.
- (b) The AOC holder shall ensure the airworthiness of the aircraft and the serviceability of both operational and emergency equipment by:
  - (1) Assuring the accomplishment of preflight inspections;
  - (2) Assuring the correction of any defect and/or damage affecting safe operation of an aircraft to an approved standard, taking into account the MEL and CDL if available for the aircraft type;
  - (3) Assuring that the operational and emergency equipment necessary for the intended flight is serviceable;
  - (4) Assuring the accomplishment of all maintenance in accordance with the approved operator's aircraft maintenance programme<sup>85</sup>;
  - (5) The analysis of the effectiveness of the AOC holder's approved aircraft maintenance program<sup>86</sup>.
  - (6) Assuring the accomplishment of any operational directive, airworthiness directive and any other continued airworthiness requirement made mandatory by the CAAV<sup>87</sup>; and
  - (7) Assuring the accomplishment of modifications in accordance with an approved standard and, for non- mandatory modifications, the establishment of an embodiment policy<sup>88</sup>.
  - (8) To review the maintenance of 4 months for aircraft with maximum takeoff weight of more than 2730 kg and approved every 6 months for aircraft with a takeoff weight of less than 2730kg and certificate of maintenance review for inclusion in the aircraft records<sup>89</sup>.

<sup>83</sup> This content is revised according to Item 10, Appendix IX to Circular 21/2017/TT-BGTVT dated 30 June 2017.

<sup>84</sup> This content is revised according to Item 39 (a), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>85</sup> This content is revised according to Item 39 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>86</sup> This content is revised according to Item 39 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>87</sup> This content is revised according to Item 39 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>88</sup> This content is revised according to Item 39 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (9) Ensure the provision of equipment and supplies needed for fleet operation<sup>90</sup>.
  - (10) <sup>91</sup>Ensure that all equipment installed on an aircraft, supplies used for the operation and maintenance of the aircraft must be provided from an approved supplier in accordance with the procedure approved or acceptable by the CAAV; AOC hold may notify the CAAV the list of supplies and equipment of aircraft maintenance has been approved.
- (c) The AOC holder shall ensure that the Certificate of Airworthiness:
    - (1) The requirements in paragraph (a);
    - (2) The expiration date of the Certificate; and
    - (3) Any other maintenance condition specified in the Certificate of Airworthiness.
  - (d) The AOC holder shall ensure that the requirements specified in paragraph (a) are performed in accordance with procedures approved by or acceptable to the CAAV.
  - (e) The AOC holder shall ensure that the maintenance, preventive maintenance, and modification of its aircraft/ aeronautical products are performed in accordance with its maintenance control manual and/or current instructions for continued airworthiness, and applicable aviation regulations.
  - (f) The AOC holder may make an arrangement with another person or entity for the performance of any maintenance, preventive maintenance, or modifications; but shall remain responsible of all work performed under such arrangement.

#### **12.225 APPROVAL AND ACCEPTANCE OF AOC MAINTENANCE SYSTEMS AND PROGRAMMES<sup>92</sup>**

- (a) An AOC holder shall not operate an aircraft, except for pre-flight inspections, unless it is maintained and released to service by an AMO or equivalent system of maintenance that is approved by the CAAV in accordance to Part 5, except the preflight inspection.
- (b) If an AOC holder uses engine or spare part of another AOC holder or uses the contractor for supplying engine service, spare part or maintenance services, that AOC holder shall establish oversighting policy and procedures to ensure the engine or spare part installed on a Vietnam registered aircraft of that AOC holder has been maintained at an organisation approved or accepted by CAAV.
- (c) For aircraft not registered in Vietnam, a system of maintenance will be approved by the State of Registry of the aircraft, and such approval must be acceptable to the CAAV.
- (d) When the CAAV or the State of Registry accepts an equivalent system of maintenance, the persons designated to sign an certification for maintenance release shall be licenced as required under the applicable personnel licensing or airworthiness regulations of the State of Registry in accordance with Annex 1 of Chi-ca-go Convention.
- (e) Aircraft that are type certificated for a passenger seating configuration, excluding any pilot seat, of 9 seats or less, shall be:
  - (1) Inspected and maintained in accordance with the provisions of Part 4;
  - (2) In accordance with the manufacturer's maintenance programme approved by the CAAV for each aircraft engine, propeller, propeller governor, rotor and each item of emergency equipment.
- (g) <sup>93</sup> when the CAAV accepts an equivalent system, the person signing the maintenance release shall be licensed in accordance with Part 7 of Vietnam Aviation Regulations or licensing regulations of state of registry that is complied with Annex 1 of Chicago Convention.

<sup>89</sup> This content is revised according to Item 39 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>90</sup> This content is revised according to Item 39 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>91</sup> This content is revised according to Item 39 (c), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>92</sup> This content is revised according to Item 40, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>93</sup> This content is revised according to Item 4, Appendix VIII to Circular 56/2018/TT-BGTVT dated 30 Jan 2019.

- (h) <sup>94</sup>As of 5 November 2020, the operator shall not operate an aeroplane unless maintenance on the aeroplane, including any associated engine, propeller and part, is carried out:

1. by an approved organization complying with Part 5 Vietnam Aviation Regulations or by an organization approved by another Contracting State and is accepted by the CAAV.

2. by a person or organization in accordance with procedures that are authorized by the CAAV and there is a maintenance release in relation to the maintenance carried out.

#### 12.227 MAINTENANCE CONTROL MANUAL

- (a) The AOC holder shall provide to the CAAV, and to the State of Registry of the aircraft, if different from the Authority, an AOC holder's maintenance control manual and subsequent amendments, for the use and guidance of maintenance and operational personnel concerned, containing details of the organisation's structure including:
- (1) The accountable manager and designated person(s) responsible for the maintenance system.
  - (2) Procedures to be followed to satisfy the maintenance responsibility of this Subpart, except where the AOC holder is an AMO, and also performs the quality system functions. Such procedures may be included in the AMO procedures manual.
  - (3) Procedures for the reporting of failures, malfunctions, and defects in accordance with Part 5, to the CAAV, State of Registry and the State of Design within 72 hours of discovery; in addition, items that warrant immediate notification to the CAAV by telephone/telex/fax, with a written follow-on report as soon as possible but no later than within 72 hours of discovery, are<sup>95</sup>:
    - (i) Primary structural failure;
    - (ii) Control system failure;
    - (iii) Fire in the aircraft;
    - (iv) Engine structure failure, and
    - (v) Any other condition considered an imminent hazard to safety.
- (b) The contents of the manual shall observe human factors principles.
- (c) This manual shall be amended or revised as is necessary to ensure that the information contained therein is kept up to date.
- (d) The AOC holder shall promptly furnish this Manual, or pertinent portions, together with all amendments and revisions to all personnel and organizations that are required to use it.
- (e) No person may provide for use of its personnel in commercial air transport any Maintenance Control Manual or portion of this manual which has not been reviewed and approved for the AOC holder by the CAAV.
- (f) The AOC holder shall provide the CAAV, and the State of Registry, if not Vietnam, with a copy of the operator's maintenance control manual, together with all amendments and/or revisions to it prior to its use.

<sup>94</sup> This content is revised according to Item 4, Appendix VIII to Circular 56/2018/TT-BGTVT dated 30 Jan 2019.

<sup>95</sup> This content is revised according to Item 41, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

*Note: See Appendix 1 to 12.227 for the required contents of the Maintenance Control Manual.*

#### **12.230 MANDATORY MATERIAL FOR MAINTENANCE CONTROL MANUAL**

- (a) The AOC holder shall incorporate mandatory information as necessary amendments to the Maintenance Control Manual as required by the CAAV or the State of Registry, if not Vietnam, as soon as reasonably possible, but no later than 30 days after receipt and submit any amendments to their maintenance manuals for approval.
- (b) <sup>96</sup>The AOC holder shall provide timely notification to the CAAV of the receipt of mandatory information from the State of Registry or the manufacturer.

#### **12.233 MAINTENANCE MANAGEMENT**

- (a) The AOC holder, also approved as an AMO, may carry out the maintenance requirements specified in (2), (3), (5), and (6) (b) of 12.223.
- (b) If the AOC holder is not an AMO, the AOC holder shall meet its responsibilities under (2),(3),(5)and (6) (b) in 12.223 by using:
  - (1) An equivalent system of maintenance approved or accepted by the CAAV; or
  - (2) Through an arrangement with an AMO with a written maintenance contract agreed between the AOC holder and the contracting AMO detailing the required maintenance functions and defining the support of the quality functions approved or accepted by the CAAV.
- (c) The AOC holder shall employ a person or group of persons, acceptable to the CAAV, to ensure that all maintenance is carried out to an approved standard such that the maintenance requirements of 12.223 and requirements of the AOC holder's maintenance control manual are satisfied, and to ensure the functioning of the quality system.
- (d) The AOC holder shall provide suitable office accommodation at appropriate locations for the personnel specified in paragraph (c).
- (e) The Single Pilot and Basic Air Taxi operator are not required to employ maintenance personnel, but must contract to those personnel and facilities acceptable to the CAAV.

#### **12.235 MAINTENANCE QUALITY SYSTEM**

- (a) For maintenance purposes, the AOC holder's quality system shall include at least the following functions:
  - (1) Monitoring the activities that are being performed in accordance with the accepted procedures;
  - (2) Ensure that all contracted maintenance is carried out in accordance with the contract, if any;
  - (3) Monitoring the continued compliance with the maintenance requirements; and
  - (4) Monitoring compliance with, and adequacy of, procedures required ensuring safe maintenance practices, airworthy aircraft and aeronautical products.

*Note: Compliance monitoring must include a feedback system to the accountable manager to ensure corrective action as necessary.*

- (b) The AOC holder's quality system shall include a quality assurance programme that contains procedures designed to verify that all maintenance operations are being conducted in accordance with all applicable requirements, standards and procedures.
- (c) Where the AOC holder is also an AMO, the AOC holder's quality management system may be combined with the requirements of an AMO and submitted for approval and acceptance to the CAAV, and State of Registry for aircraft not registered in Vietnam.

*Note: See Appendix 1 to 12.235 for additional quality system requirements for maintenance activities.*

<sup>96</sup> This content is revised according to Item 42, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.



- (d) <sup>97</sup>The Single Pilot and Basic Air Taxi operators are not required to have a maintenance quality system, but must use maintenance quality methods acceptable to the CAAV.

#### **12.237 AIRCRAFT TECHNICAL LOG ENTRIES OF AOC HOLDERS**

- (a) Each person who takes action in the case of a reported or observed failure or malfunction of an aircraft/ aeronautical product, that is critical to the safety of flight shall make, or have made, a record of that action in the maintenance section of the aircraft technical log.
- (b) The AOC holder shall have a procedure for keeping adequate copies of required records to be carried aboard, in a place readily accessible to each flight crew member and shall put that procedure in the AOC holder's operations manual.

#### **12.240 MAINTENANCE RECORDS**

- (a) The AOC holder shall ensure that a system has been established to keep, in a form acceptable to the CAAV:
- (1) The total time in service (hours, calendar time and cycles, as appropriate) of the aircraft and all life- limited components;
  - (2) The current status of compliance with all mandatory continuing airworthiness information;
  - (3) Appropriate details of modifications and repairs to the aircraft and its major components;
  - (4) The time in service (hours, calendar time and cycles, as appropriate) since last overhaul of the aircraft or its components subject to mandatory overhaul life;
  - (5) The current aircraft status of compliance with the maintenance program; and
  - (6) The detailed maintenance records to show that all requirements for signing of a maintenance release have been met.
- (b) The AOC holder shall ensure that items in:
- (1) A minimum of 12 months after the unit to which they refer (1), (2), (3), (4), (5) (a) or has been permanently withdrawn from service with this AOC holder, or
  - (2) The records in (a)(6) shall be kept for a minimum of 12 months after the signing of the maintenance release; or
  - (3) A different minimum time interval prescribed by the CAAV, whichever is greater.
- (c) <sup>98</sup>The records in (a) shall be kept for a minimum of 1 year after the signing of the maintenance release.
- (d) <sup>99</sup>The AOC holder shall ensure that in the event of temporary change of operator, the records specified in paragraph (a) shall be made available to the new operator.
- (e) <sup>100</sup>The AOC holder shall ensure that when an aircraft is permanently transferred from one operator to another operator, the records specified in paragraph (a) are also transferred.
- (f) <sup>101</sup>The aircraft technical log and any subsequent amendment shall be approved by the CAAV.

#### **12.243 RELEASE TO SERVICE OR MAINTENANCE SECTION RECORDS OF THE TECHNICAL LOG**

- (a) An AOC holder shall not operate an aircraft unless it is maintained and released to service by an organisation approved in accordance with Part 5, or under an equivalent system, either of which shall be:
- (1) Approved by the CAAV; and
  - (2) Acceptable to the State of Registry (if not Vietnam).
- (b) An AOC holder using an equivalent system shall not operate an aircraft after release under sub paragraph (a) unless a release to service is prepared or caused to be prepared by an

<sup>97</sup> This content is revised according to Item 43, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>98</sup> This content is revised according to Item 44 (a), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>99</sup> This content is revised according to Item 44 (a), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>100</sup> This content is revised according to Item 44 (a), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>101</sup> This content is revised according to Item 44 (b), Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

appropriately licenced and rated individual in accordance with these Parts, as appropriate. The maintenance release shall be made in accordance with the AOC maintenance control manual procedures.

- (c) An AOC holder using an AMO shall not operate an aircraft after release to service under sub paragraph (a) unless an appropriate entry is made in accordance with the AOC maintenance control manual procedures acceptable to the CAAV.
- (d) The AOC holder shall give a copy of the release to service for the aircraft to the pilot in command and ensure that an entry noting the release is made in the maintenance section of the aircraft technical log.
- (e) **102As of 5 November 2020, when maintenance is not carried out by an approved maintenance organization, the maintenance release shall be completed and signed by a person appropriately licensed in accordance with Part 7 Vietnam Aviation Regulations or regulatory requirements of State of Registry that complied with Annex 1 to certify that the maintenance work performed has been completed satisfactorily and in accordance with approved data and procedures acceptable to the State of Registry**

#### **12.245 MODIFICATION AND REPAIRS**

- (a) <sup>103</sup>All modifications and repairs shall comply with airworthiness requirements approved by the CAAV or the State of Registry, if the state of register is not Vietnam, acceptable and meet the following requirements:
  - (1) Procedures shall be established to ensure that the substantiating data supporting compliance with the airworthiness requirements are retained.
  - (2) However, in the case of a major repair or major modification, the work must have been done in accordance with technical data approved by the CAAV.
- (b) <sup>104</sup>An AOC holder authorised to perform maintenance, preventive maintenance, and modifications of any aircraft, airframe, aircraft engine, propeller, appliance, component, or part thereof, in accordance with the approved operations specifications, intending to certify an aircraft registered in Vietnam for maintenance release after major repairs or major modifications shall use a current and valid licenced AMT with an airframe and powerplant rating and shall be qualified in accordance with Part 4.
- (c) The AOC holder shall, promptly upon its completion, prepare a report of each major modification or major repair of an airframe, aircraft engine, propeller, or appliance of an aircraft operated by it.
- (d) The AOC holder shall submit a copy of each report of a major modification to the CAAV, and shall keep a copy of each report of a major repair available for inspection.

#### **12.247 AIRCRAFT MAINTENANCE PROGRAMME**

- (a) The AOC holder requesting approval to operate a large or turbine powered aircraft or an aircraft type certificated for 10 passengers or more shall provide, for the use and guidance of maintenance and operational personnel concerned, a maintenance programme approved by the State of Registry containing the information prescribed by the CAAV.
- (b) The AOC holder's aircraft maintenance programme and any subsequent amendment shall be submitted to the CAAV for approval prior to use. If the aircraft is not registered in Vietnam, acceptance by the CAAV will be conditioned upon prior approval by the State of Registry, or where appropriate, upon the AOC holder complying with recommendations provided by the State of Registry.
- (c) The maintenance programme should be based on maintenance programme information made available by the State of Design or by the organization responsible for the type design, and any additional applicable experience.

<sup>102</sup> This content is revised according to Item 5, Appendix VIII to Circular 56/2018/TT-BGTVT dated 30 Jan 2019.

<sup>103</sup> This content is revised according to Item 45, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>104</sup> This content is revised according to Item 45, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.



- (d) The design and application of the maintenance programme shall observe Human Factors principles.
- (e) The AOC holder shall ensure that each aircraft is maintained in accordance with the AOC holder's aircraft approved maintenance programme which shall include:
  - (1) Maintenance tasks and the intervals in which these are to be performed, taking into account the anticipated utilisation of the aircraft;
  - (2) When applicable, a continuing structural integrity programme;
  - (3) Procedures for changing or deviating from sub paragraphs (e)(1) and (e)(2); and
  - (4) When applicable, condition monitoring and reliability programme, descriptions for aircraft systems, components, and powerplants.
- (f) Maintenance tasks and intervals that have been specified as mandatory in approval of the type design shall be identified.
- (g) Repetitive maintenance tasks that are specified in mandatory intervals as a condition of approval of the type design shall be identified.
 

*Note: The maintenance programme should be based on maintenance programme information made available by the State of Design or by the organisation responsible for the type design, and any additional applicable experience.*
- (h) <sup>105</sup>Approval by the CAAV of an AOC holder's maintenance programme and any subsequent amendments shall be included in its Operations Specifications.
- (i) Copies of the maintenance programme and all amendments shall be furnished to the personnel and organizations who are to perform work on the AOC holder's aircraft.
- (j) Copies of all amendments to the maintenance programme shall be furnished promptly to all organizations or persons to whom the maintenance programme has been issued.
- (k) No person may provide for use of its personnel in commercial air transport a Maintenance programme or portion thereof which has not been reviewed and approved for the AOC holder by the CAAV.
- (l) The CAAV will require an operator to include a reliability programme when the Authority determines that such a reliability programme is necessary. When such a determination is made by the Authority the AOC holder shall provide such procedures and information in the AOC holder's maintenance control manual.
- (m) The AOC holder shall have an inspection programme and a programme covering other maintenance, preventive maintenance, and modifications to ensure that:
  - (1) Maintenance, preventive maintenance, and modifications performed in accordance with the AOC holder's maintenance control manual;
  - (2) Each aircraft released to service is airworthy and has been properly maintained for operation.
- (n) The CAAV may amend any specifications issued to an AOC holder to permit deviation from those provisions of this Subpart that would prevent the maintenance release and use of airframe components, powerplants, appliances, and spare parts have been maintained, altered, or inspected by persons employed outside Vietnam who do not hold an Vietnam technician's licence.
- (o) The AOC holder who is granted authority under this (n) shall provide for surveillance of facilities and practices to assure that all work performed on these parts is accomplished in accordance maintenance control manual.

#### **12.250 CONTINUING AIRWORTHINESS INFORMATION<sup>106</sup>**

- (a) The operator of an aeroplane over 5 700 kg or a helicopter over 3, 175 kg maximum certificated take-off mass shall:

<sup>105</sup> This content is revised according to Item 46, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>106</sup> This content is revised according to Item 47, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (1) Monitor and assess maintenance and operational experience with respect to continuing airworthiness; and
  - (2) Provide the information as prescribed by the CAAV and the State of Registry, if not Vietnam; and
  - (3) Report through the system specified in the maintenance control manual approved by the CAAV.
- (b) The operator of an aeroplane over 5 700 kg or a helicopter over 3.175 kg maximum certificated take-off mass shall:
- (1) Obtain and assess continuing airworthiness information and recommendations available from the organization responsible for the type design; and
  - (2) Implement resulting actions considered necessary in accordance with a procedure acceptable to the State of Registry.

#### **12.253 AUTHORITY TO PERFORM AND APPROVE MAINT., PREVENTIVE MAINT. AND MODIFICATIONS**

- (a) An AOC holder which is not approved as an AMO may perform and certify routine and non-routine maintenance, preventive maintenance, or inspections for maintenance release, if authorized by the AOC holder's operations specifications, as provided in its maintenance programme and maintenance control manual.
- (b) An AOC holder may make arrangements with an AMO (appropriately rated) for the performance of maintenance, preventive maintenance, or modifications of any aircraft, airframe, aircraft engine, propeller, appliance, or component, or part thereof as provided in its maintenance programme and maintenance control manual.
- (c) <sup>107</sup>An AOC holder which is not approved as an AMO shall use a appropriately licenced and rated individual in accordance with Parts 5 and 7, as appropriate, to certify maintenance and preventive maintenance for maintenance release after performing or supervising in accordance with technical data approved by the CAAV.

#### **12.255 REQUIRED MANDATORY MAINTENANCE INSPECTION PERSONNEL**

- (a) No operator may allow employees to perform required inspections unless the person performing the inspection is appropriately compliance with regulatory requirements of the approved quality system or quality management system.
- (b) No operator may allow employees to perform maintenance on the request unless the person performing the inspection process comply with regulatory requirements of the approved quality system or quality management system.
- (c) No person may perform a required inspection if he performed the item of work required to be inspected.
- (d) Each certificated holder shall maintain, or shall determine that each person with whom it arranges to perform its required inspections, maintains a current listing of persons who have been trained, qualified and authorized to conduct required inspections:
  - (1) The persons must be identified by name, occupational title, and the inspections they are authorized to perform.
  - (2) The AOC holder (or person with whom it arranges to perform its required inspections) shall give written authorisation to each person so authorized, describing the extent of his responsibilities, authorisations and inspection limitations.
  - (3) <sup>108</sup>This listing shall be sent to the CAAV on request.

<sup>107</sup> This content is revised according to Item 48, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>108</sup> This content is revised according to Item 49, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

## **12.257 LICENCE REQUIREMENTS FOR A TECHNICIAN OF AOC HOLDER USING EQUIVALENT SYSTEM**

- (a) Each person who is directly in charge of maintenance, preventive maintenance, or modification, of any aircraft, airframe, aircraft engine, propeller, appliance, or component, or part thereof and each person performing required inspections and certifying maintenance release the maintenance performed shall be a appropriately licenced and rated technician or repair specialists in accordance with Part 5 and 7, as appropriate, and acceptable to the CAAV.
- (b) A person who is directly in charge shall be on site but need not physically observe and direct each worker constantly, but shall be available for consultation and decision on matters requiring instruction or decision from higher authority than that of the persons performing the work.

*Note: A person "directly in charge" is each person assigned to a position in which he is responsible for the work of a shop or station that performs maintenance, preventive maintenance, modifications, or other functions affecting aircraft airworthiness.*

<sup>109</sup>Note: (removed)

## **APPENDICES**

### **APPENDIX 1 TO 12.013 REGULATION PROCEDURES FOR ISSUING AIRCRAFT OPERATION CERTIFICATE**

- (a) For documents relating to the aircraft operator, the applicant for an AOC of commercial air transport to send 01 records in person or by mail to the CAAV and responsible about the information in the record. Records for issuance of AOC of commercial air transport aircraft include:
  - (1) An application for a AOC must include the following information: business name, trade name, location of principle office; legal representative (CEO); types of businesses; operation areas and facility; types of operation, the type of aircraft operated.
  - (2) Documentation to describe organizational management;
  - (3) The full name of the post holders, including those responsible for flight operation, maintenance system, crew training and ground activities along with the experience and their professional competence.
  - (4) Operational manual.
- (b) For aircraft maintenance system, the applicant must provide the documents along with the application for the origin aircraft operation certificate; and in case of necessity, the dossier of request for amendment or renewal of operation certificate for each new aircraft to be put into operation.
  - (1) Maintenance organization exposition manual;
  - (2) The aircraft maintenance program of operator
  - (3) Maintenance log book;
  - (4) Type and number of aircraft registered Vietnamese nationality.
  - (5) In addition to the provisions of paragraph (4)(b) of this appendix, operator can operate the aircraft is registered in another country when there is a transfer of responsibility agreements (function) safety monitoring between the CAAV and the national authorities of state of registry under the provisions of Article 83bis of the Chi-ca-go Convention;
  - (6) Maintenance contracts between the operator and approved maintenance organizations in accordance with Part 5.

### **<sup>110</sup>APPENDIX 1 TO 12.017: AIRCRAFT DISPLAY AIR OPERATOR CERTIFICATE**

- (a) The certified true copy of the AOC shall be in a standardized format that:
  - (1) Closely approximates the format provided in ICAO Annex 6, Part I and Part II to enable a foreign CAA to easily determine that the air operator is in compliance; and.

<sup>109</sup> This content is revised according to Item 29, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>110</sup> This content is revised according to Item 50, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (2) Contains the minimum information required in paragraphs (b) of this Appendix.
- (b) The minimum contents of the aircraft display AOC shall be:
  - (1) A header with bold letters identifying that the State of the Operator is the “Republic of Vietnam.”.
  - (2) A sub-header with smaller bold letters identifying that the issuing authority of the State of the Operator is the “Civil Aviation Authority of Vietnam.”
  - (3) A unique AOC number, as issued by CAAV.
  - (4) The expiration date after which the AOC ceases to be valid (dd-mm-yyyy).
  - (5) The air operator’s registered name.
  - (6) The operator’s trading name, if different than (5). Insert “dba” before the trading name (for “doing business as”).
  - (7) The operator’s principal place of business address.
  - (8) The operator’s principal place of business telephone and fax details, including the country code. email to be provided if available.
  - (9) The contact details include the telephone and fax numbers, including the country code, and the e-mail address (if available) at which operational management can be contacted without undue delay for issues related to flight operations, airworthiness, flight and cabin crew competency, dangerous goods and other matters, as appropriate.
  - (10) The controlled document (Operations Manual) which is carried on board on board the aircraft, in which the operator contact details are listed, with the appropriate paragraph or page reference.
  - (11) A specific reference to the appropriate civil aviation regulations.
  - (12) The Issuance date of the AOC (dd-mm-yyyy).
  - (13) The title, name and signature of the CAAV representative. In addition, an official stamp may be applied on the AOC.

**APPENDIX 2 TO 12.017: AIRCRAFT DISPLAY OPERATIONS SPECIFICATIONS<sup>111</sup>**

- (a) The operator shall have on board the aircraft, aircraft display operations specifications identified by aircraft make, model and series for each aircraft model in the operator’s fleet approved by the CAAV. If authorizations and limitations are identical for two or more models, these models may be grouped in a single list.
- (b) The certified true copy of the aircraft display operations specifications shall be in a standardized format that:
  - (1) Closely approximates the format provided in ICAO Annex 6, Part I or Part III to enable a foreign CAA to easily determine that the air operator is in compliance; and.
  - (2) Contains the minimum information required in paragraphs (c) of this Appendix.
- (c) The minimum content of the general portion of the aircraft display operations specifications shall be:
  - (1) The header “Operations Specifications” with the text underneath to be “ Subject to the approved conditions in the operations manual.”
  - (2) The telephone and fax contact details for CAAV, including the country code and an appropriate e-mail contact.
  - (3) The AOC number associated with these operations specifications;
  - (4) The operator’s registered name and the operator’s trading name, if different. Insert “dba” before the trading name (for “doing business as”).
  - (5) The issuance date of the operations specifications (dd-mm-yyyy) and signature of the CAAV representative.

<sup>111</sup> This content is revised according to Item 50, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (6) The detail information of the aircraft manufacturer, aircraft type, aircraft model;
  - (7) Any other type of transportation to be specified (e.g. emergency medical service).
  - (8) List the geographical area(s) of authorized operation.
  - (9) List the applicable special limitations (e.g. VFR only, day only).
- (d) The minimum content of the specific authorizations portion of the aircraft display operations specifications shall be entered under four columns:
- (1) Special Authorizations;
  - (2) Yes, No or N/A;
  - (3) Special approvals; and
  - (4) Remarks.
- (e) The minimum specific authorizations that must be addressed in these columns in the following specific order include:
- (1) Dangerous goods;
  - (2) Low Visibility Operations: Approach and Landing;
  - (3) Low Visibility Operations: Takeoff;
  - (4) RVSM;
  - (5) EDTO;
  - (6) Each Navigation Specification for PBN operations
  - (7) Continuing airworthiness
  - (8) Other.
- (f) Where the special authorization for RVSM (paragraphs (f)(4)) or EDTO (paragraph (f)(5)) is not applicable, the authorization row must appear in the operations specifications even when the authorization has not been granted to the operator, but the authorization should be shown as “not applicable” by the entry of “N/ A” in the appropriate column.
- (g) Additionally, for the following authorizations the “Special Approvals” column shall contain:
- (1) For Low Visibility Operations: Approach and Landing (paragraph (f)(2)):
    - (i) A separate line for each applicable precision approach category (CAT I, II, IIIA, IIIB, IIIC) and
    - (ii) The minimum RVR in metres and decision height in feet.
  - (2) For Low Visibility Operations: Takeoff (paragraph (f)(3)):
    - (i) A separate line for each approval should be used if different approvals are granted; and
    - (ii) The approved minimum take-off RVR in metres.
  - (3) For EDTO operations:
    - (i) A threshold time;
    - (ii) Maximum diversion time.
  - (4) For PBN operations (paragraph (e)(6)):
    - (i) A separate line should be used for each PBN specification authorization granted (e.g. RNAV 10, RNAV 1, RNP 4);
    - (ii) With appropriate limitations or conditions listed in the “Specific Approvals” and/or “Remarks” columns.
  - (5) For Continuing Airworthiness:
    - (i) Insert the name of the person/organization responsible for ensuring that the continuing airworthiness of the aircraft is maintained; and

- (ii) The regulation that requires the work, i.e. within the AOC regulation or a specific approval.
- (6) For other authorizations (paragraph (f)(8):
  - (i) Additional authorizations or data can be entered here, using one line (or one multi-line block) per authorization.
  - (ii) These authorizations could include special approach authorization, MNPS, approved navigation performance).

**APPENDIX 1 TO 12.023 PROCEDURES FOR RENEWAL OF THE AIRCRAFT OPERATION CERTIFICATE**

- (a) The operator to send 01 application for AOC renewal in person or by mail to the CAAV. Application for renewal AOC must be sent to the CAAV at least 30 days before the expiration date of the certificate. Dossier includes:
  - (1) An application for renewal of AOC include the following information: business name, trade name, location of principle office; legal representative (chief executive officer); type of enterprise; operation areas and facility; types of operation, type of aircraft operated.
  - (2) Report changes up to the time of the proposal to renew the aircraft operator certificate.

**APPENDIX 2 TO 12.023 PROCEDURES FOR AMENDMENTS AND SUPPLEMENTS THE AIRCRAFT OPERATION CERTIFICATE**

- (a) The operator to send 01 application state the request for amendments and supplements in person or by mail to the CAAV. Application for amendments, supplements AOC must be sent to the CAAV at least 30 days before the scheduled amendments, supplements AOC take effect. Dossier includes:
  - (1) An application for amendment and supplement to the rating, aircraft type of AOC aircraft operator certificate. Clearly stating the contents of proposed amendments and supplements;
  - (2) Other relevant amendments, supplements documentations.

**APPENDIX 1 TO 12.033: CERTIFICATION OF SINGLE-PILOT AIR TAXIS**

- (a) The full initial certification process shall be implemented by the CAAV for single-engine AOC applicants.
- (b) The exceptions of Part 12 for single-pilot air taxis may be considered for those operators with fewer than 3 fully qualified PICs.
- (c) The aircraft must be able to maintain performance requirements for such operations.
- (d) No AOC holder may be authorised to operate an aircraft under the IFR or at night by a single pilot unless the:
  - (1) Flight manual does not require a flight crew of more than one;
  - (2) The aeroplane is propeller-driven;;
  - (3) Maximum approved passenger seating configuration is not more than 9;
  - (4) Maximum certificated take-off mass does not exceed 5 700 kg;
  - (5) Aeroplane is equipped as described in Part 6 for single-pilot IFR and night operations; and
  - (6) PIC has satisfied requirements of experience, training, checking and recency of Part 14, including demonstration of briefing for emergency evacuation, use of autopilot during IFR operations, and used of condensed navigation documentation.

**APPENDIX 2 TO 12.033: NIGHT & IMC OPS: SINGLE-ENGINE TURBINE-POWERED AIRCRAFT**

- (a) The following airworthiness and operational requirements are provided to ensure a valid certification of an applicant for an AOC to operate single-engine turbine-powered aircraft in commercial air transport at night and IMC:

**1. Turbine engine reliability**

- (a) Turbine engine reliability shall be shown to have a power loss rate of less than 1 per 100 000 engine hours.

*Note.- Power loss in this context is defined as any loss of power, the cause of which may be traced to faulty engine or engine component design or installation, including design or installation of the fuel ancillary or engine control systems.*

- (b) The operator shall be responsible for engine trend monitoring.
- (c) To minimize the probability of in-flight engine failure, the engine shall be equipped with:
- (1) An ignition system that activates automatically, or is capable of being operated manually, for take-off and landing, and during flight, in visible moisture;
  - (2) A magnetic particle detection or equivalent system that monitors the engine, accessories gearbox, and reduction gearbox, and which includes a flight deck caution indication; and
  - (3) An emergency engine power control device that permits continuing operation of the engine through a sufficient power range to safely complete the flight in the event of any reasonably probable failure of the fuel control unit.

## **2. Systems and equipment**

- (a) Single-engine turbine-powered aeroplanes approved to operate at night and/or in IMC shall be equipped with the following systems and equipment intended to ensure continued safe flight and to assist in achieving a safe forced landing after an engine failure, under all allowable operating conditions.
- (b) Two separate electrical generating systems, each one shall satisfy the following: capable of supplying all probable combinations of continuous in-flight electrical loads for instruments, equipment and systems required at night and/or in IMC:
- (1) A radio altimeter
  - (2) An emergency electrical supply system of sufficient capacity and endurance, following loss of all generated power, to as a minimum:
    - (i) Maintain the operation of all essential flight instruments, communication and navigation systems during a descent from the maximum certificated altitude in a glide configuration to the completion of a landing;
    - (ii) Lower the flaps and landing gear, if applicable;
    - (iii) Provide power to one pilot heater, which must serve an air speed indicator clearly visible to the pilot.
    - (iv) Provide for operation of the landing light specified in 2 (i);
    - (v) Provide for one engine restart, if applicable; and
    - (vi) Provide for the operation of the radio altimeter.
  - (3) Two attitude indicators, powered from independent sources;
  - (4) A means to provide for at least one attempt at engine re-start;
  - (5) Airborne weather radar;
  - (6) A certified area navigation system capable of being programmed with the positions of aerodromes and safe forced landing areas, and providing instantly available track and distance information to those locations.
  - (7) For passenger operations, passenger seats and mounts which meet dynamically-tested performance standards and which are fitted with a shoulder harness or a safety belt with a diagonal shoulder strap for each passenger seat for all occupants for descent following engine failure at the maximum glide performance from the maximum certificated altitude to an altitude at which supplemental oxygen is no longer required.
  - (8) A landing light that is independent of the landing gear and is capable of adequately illuminating the touchdown area in a night forced landing; and
  - (9) An engine fire warning system.

## **3. Minimum equipment list**



- (a) The minimum equipment list of an operator must be approved by the CAAV to specify the operating equipment required for night and/or IMC operations, and for day/VMC operations.

#### **4. Flight manual information**

- (a) The flight manual shall include limitations, procedures, approval status and other information relevant to operations by single-engine turbine-powered aeroplanes at night and/or in IMC.

#### **5. Event reporting**

- (a) An operator approved for operations by single-engine turbine-powered aeroplanes at night and/or in IMC shall report to the CAAV all significant failures, malfunctions or defects so the CAAV in turn will notify the State of Design.
- (b) The CAAV shall review the safety data and monitor the reliability information so as to be able to take any actions necessary to ensure that the intended safety level is achieved.
- (c) The CAAV will notify major events or trends of particular concern to the appropriate type Certificate holder and the State of design.

#### **6. Operator route planning**

- (a) Operator route planning shall take account of all relevant information in the assessment of intended routes or areas of operations, including the following:
  - (1) The nature of the terrain to be overflown, including the potential for carrying out a safe forced landing in the event of an engine failure or major malfunction;
  - (2) Weather information, including seasonal and other adverse meteorological influences that may affect the flight; and
  - (3) Other criteria and limitations as specified by the CAAV.
- (b) An operator shall identify aerodromes or safe forced landing areas available for use in the event of engine failure, and the position of these shall be programmed into the area navigation system.

*Note 1: A 'safe' forced landing in this context means a landing in an area at which it can reasonably be expected that it will not lead to serious injury or loss of life, even though the aeroplane may incur extensive damage.*

*Note 2: Operation over routes and in weather conditions that permit a safe forced landing in the event of an engine failure is not a criteria for this type of aircraft, The availability of forced landing areas at all points along a route is not specified for these aeroplanes because of the very high engine reliability, additional systems and operational equipment, procedures and training requirements specified in this Appendix..*

#### **7. Flight crew experience, training and checking**

- (a) The CAAV shall prescribe the minimum flight crew experience required for night/IMC operations by single-engine turbine-powered aeroplanes.
- (b) An operator's flight crew training and checking shall be appropriate to night and/or IMC operations by single-engine turbine-powered aeroplanes, covering normal, abnormal and emergency procedures and, in particular, engine failure, including descent to a forced landing in night and/or in IMC conditions.

#### **8. Route limitations over water**

- (a) The CAAV shall evaluate and apply route limitation criteria for single-engine turbine-powered aeroplanes operating at night and/or in IMC on over water operations if beyond gliding distance from an area suitable for a safe forced landing/ditching having regard to the:
  - (1) Characteristics of the aeroplane;
  - (2) Seasonal weather influences, including likely sea state and temperature, and
  - (3) The availability of search and rescue services.

#### **9. Operator certification or validation**

The operator shall demonstrate the ability to conduct operations by single-engine turbine-powered aeroplanes at night and/or in IMC through a certification and approval process specified by the CAAV.

### **APPENDIX 3 TO 12.033 NIGHT & IMC OPS: PERFORMANCE CLASS 3 HELICOPTERS<sup>112</sup>**

The following airworthiness and operational requirements are provided to ensure a valid certification of an applicant for an AOC to operate a Performance Class 3 Helicopter in commercial air transport at night and IMC:

- (a) Engine reliability
  - (1) Attaining and maintaining approval for engines used by helicopters operating in performance Class 3 in IMC:
  - (2) In order to attain initial approval for existing in-service engine types, reliability shall be shown to have a nominal power loss rate of less than 1 per 100 000 engine hours based on a risk management process.
  - (3) In order to attain initial approval for new engine types, the State of Design shall assess engine models for acceptance for operations in performance Class 3 in IMC on a case-by-case basis.
  - (4) In order to maintain approval, the State of Design shall, through the continuing airworthiness process, ensure that engine reliability remains consistent with the intent of the reliability requirements.
  - (5) The operator shall be responsible for a program for ongoing engine trend monitoring.
  - (6) To minimize the probability of in-flight engine failure, the engine shall be equipped with:
    - (i) for turbine engines: a re-ignition system that activates automatically or a manually selectable continuous ignition system unless the engine certification has determined that such a system is not required, taking into consideration the likely environmental conditions in which the engine is to be operated;
    - (ii) a magnetic particle detection, or equivalent, system that monitors the engine, accessories gearbox, and reduction gearbox, and which includes a flight deck caution indication; and
    - (iii) a means that would permit continuing operation of the engine through a sufficient power range to safely complete the flight in the event of any reasonably probable failure of the fuel control unit.
- (b) Systems and equipment
  - (1) Helicopters operating in performance Class 3 in IMC shall be equipped with the following systems and equipment intended to ensure continued safe flight or to assist in achieving a safe forced landing after an engine failure, under all allowable operating conditions:
    - (i) either two separate electrical generating systems, each one capable of supplying all probable combinations of continuous in-flight electrical loads for instruments, equipment and systems required in IMC; or a primary electrical source and a standby battery or other alternate source of electric power that is capable of supplying 150 per cent of electrical loads of all required instruments and equipment necessary for safe emergency operations of the helicopter for at least one hour; and
    - (ii) an emergency electrical supply system of sufficient capacity and endurance, following loss of all normally generated power to, as a minimum:
      - A. maintain the operation of all essential flight instruments, communication and navigation systems during a descent from the maximum certificated altitude in an autorotational configuration to the completion of a landing;
      - B. maintain the operation of the stabilization system, if applicable;
      - C. lower the landing gear, if applicable;
      - D. where required, provide power to one pitot heater, which must serve an airspeed indicator clearly visible to the pilot;
      - E. provide for the operation of the landing light;
      - F. provide for one engine restart, if applicable; and

<sup>112</sup> This content is revised according to Item 51, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

G. provide for the operation of the radio altimeter;

- (iii) Emergency electrical supply system is not required In case of using battery as a second power source.
  - (2) a radio altimeter;
  - (3) an autopilot if intended as a substitute for a second pilot. In these cases, the State of Operator shall ensure the operator's approval clearly states any conditions or limitations on its use;
  - (4) a means to provide for at least one attempt at engine re-start;
  - (5) an area navigation system approved for use in IFR, capable of being used to locate suitable landing areas in the event of an emergency;
  - (6) a landing light that is independent of retractable landing gear and is capable of adequately illuminating the touchdown area in a night forced landing; and
  - (7) an engine fire warning system.
- (c) Minimum serviceability requirements: operating equipment
- The minimum serviceability requirements for operating equipment in helicopters operating in performance Class 3 in IMC shall conform to the specifications of the CAAV.
- (d) Operations manual information
- The operations manual shall include limitations, procedures, approval status and other information relevant to operations in performance Class 3 in IMC.
- (e) Event reporting
- (1) An operator approved to conduct operations by helicopters in performance Class 3 in IMC shall report all significant failures, malfunctions or defects to the CAAV who in turn shall notify the State of Design.
  - (2) The CAAV shall monitor operations in performance Class 3 in IMC so as to be able to take any actions necessary to ensure that the intended safety level is maintained.
  - (3) The CAAV shall notify major events or trends of particular concern to the appropriate type certificate holder and the State of Design.
- (f) Operator planning
- Operator route planning shall take account of all relevant information in the assessment of intended routes or areas of operations, including the following:
- (1) the nature of the terrain to be overflown, including the potential for carrying out a safe forced landing in the event of an engine failure or major malfunction;
  - (2) weather information, including seasonal and other adverse meteorological influences that may affect the flight; and
  - (3) other criteria and limitations as specified by the CAAV.
- (g) Flight crew experience, training and checking
- (1) The Operator shall conform to the minimum flight crew experience for helicopters operating in performance Class 3 in IMC.
  - (2) An operator's flight crew training and checking program shall be appropriate to operations in performance Class 3 in IMC, covering:
    - (i) normal, abnormal and emergency procedures and,
    - (ii) in particular, detection of engine failure including:
      - A. descent to a forced landing in IMC and,
      - B. for single engine helicopters, entry into a stabilized autorotation.
- (h) Operator certification or validation
- The operator shall demonstrate the ability to conduct operations in performance Class 3 in IMC through a certification and approval process specified by the CAAV.

#### **APPENDIX 1 TO 12.040: ALTIMETRY SYSTEM PERFORMANCE REQUIREMENTS**

- (a) In respect of groups of aeroplanes that are nominally of identical design and build with respect to all details that could influence the accuracy of height-keeping performance, the height-keeping performance capability shall be such that the total vertical error (TVE) for the group of aeroplanes shall have a mean no greater than 25 m (80 ft) in magnitude and shall have a standard deviation no greater than  $28 - 0.013z$  for  $0 \leq z \leq 25$  when  $z$  is the magnitude of the mean TVE in metres, or  $92 - 0.0042z$  for  $0 \leq z \leq 80$  where  $z$  is in feet. In addition, the components of TVE shall have the following characteristics:
- (1) The mean altimetry system error (ASE) of the group shall not exceed 25 m (80 ft) in magnitude;
  - (2) The sum of the absolute value of the mean ASE and of 3 standard deviations of ASE shall not exceed 75 m (245 ft); and
  - (3) The differences between cleared flight level and the indicated pressure altitude actually flown shall be symmetric about a mean of 0 m, with a standard deviation no greater than 13.3 m (43.7 ft);
  - (4) In addition, the decrease in the frequency of differences with increasing difference magnitude shall be at least exponential..
- (a) In respect of aeroplanes for which the characteristics of the airframe and altimetry system fit are unique and so cannot be classified as belonging to a group of aeroplanes encompassed by paragraph 1, the height-keeping performance capability shall be such that the components of the TVE of the aeroplane have the following characteristics:
- (1) The ASE of the aeroplane shall not exceed 60 m (200 ft) in magnitude under all flight conditions; and the differences between the cleared flight level and the indicated pressure altitude actually flown shall be symmetric about a mean of 0 m, with a standard deviation no greater than 13.3 m (43.7 ft), and
  - (2) In addition, the decrease in the frequency of differences with increasing difference magnitude shall be at least exponential.

#### **APPENDIX 1 TO 12.047: ALTERNATE AIRPORT SELECTION<sup>113</sup>**

Notwithstanding the requirements of Part 10 regarding selection of alternate airports; the CAAV may, based on the results of a specific safety risk assessment conducted by the operator which demonstrates how an equivalent level of safety will be maintained, approve operational variations to alternate airport selection criteria. The specific safety risk assessment shall include at least the:

- (a) Capabilities of the operator;
- (b) Overall capability of the aircraft and its systems;
- (c) Available airport technologies, capabilities and infrastructure;
- (d) Quality and reliability of meteorological information;
- (e) Identified hazards and safety risks associated with each alternate airport variation; and
- (f)
- (g) Specific mitigation measures.

#### **APPENDIX 2 TO 12.047: MINIMUM FUEL REQUIREMENTS<sup>114</sup>**

Notwithstanding the requirements of Part 10 regarding minimum fuel for a flight; the CAAV may, based on the results of a specific safety risk assessment conducted by the operator which demonstrates how an equivalent level of safety will be maintained, approve variations to the pre-flight fuel calculation of taxi fuel, trip fuel, contingency fuel, destination alternate fuel, and additional fuel. The specific safety risk assessment shall include at least the:

- (a) Flight fuel calculations;
- (b) Capabilities of the operator to include:

<sup>113</sup> This content is revised according to Item 52, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>114</sup> This content is revised according to Item 52, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (1) A data-driven method that includes a fuel consumption monitoring programme; and/or
- (2) The advanced use of alternate airports; and
- (3) Specific mitigation measures.

#### **APPENDIX 3 TO 12.047: EDTO DIVERSION REQUIREMENTS<sup>115</sup>**

Notwithstanding the requirements of Part 10 regarding maximum diversion times; the CAAV may, based on the results of a specific safety risk assessment conducted by the operator which demonstrates how an equivalent level of safety will be maintained, approve operations beyond the time limits of the most time-limited system. The specific safety risk assessment shall include at least the:

- (a) Capabilities of the operator;
- (b) Overall reliability of the aeroplane;
- (c) Reliability of each time limited system;
- (d) Relevant information from the aeroplane manufacturer; and
- (e) Specific mitigation measures.

#### **APPENDIX 1 TO 12.060: REQUIRED MANAGEMENT PERSONNEL QUALIFICATIONS**

- (a) The AOC holder shall make arrangements to ensure continuity of supervision if operations are conducted in the absence of any required management personnel.
- (b) Required management personnel shall be contracted to work sufficient hours such that the management functions are fulfilled.
- (c) A person serving in a required management position for an AOC holder may not serve in a similar position for any other AOC holder, unless a deviation is issued by the CAAV.
- (d) The minimum initial qualifications for the flight operations postholder are:
  - (1) An ATP licence; and
  - (2) 3 years experience as PIC in commercial air transport operations of large aircraft.
- (e) The minimum qualifications for the crew training postholder are:
  - (1) An ATP licence with the appropriate ratings for at least one of the aircraft used in the AOC holder's operations; and
  - (2) 3 years experience as PIC in commercial air transport operations of large aircraft.
 

*Note: The CAAV may accept a commercial pilot licence (CPL) with instrument rating in lieu of the ATP licence if the PIC requirements for the operations conducted require only a commercial certificate.*
- (f) The minimum entry qualifications for the postholder responsible for the maintenance system are:
  - (1) Be qualified in accordance with Part 5 and 7 or other quivelant systems; and
  - (2) At least 3 years experience in aircraft maintaining or enginee.
- (g) An AOC holder may employ a person who does not meet the appropriate airman qualification or experience if the CAAV issues a deviation finding that person has comparable experience and can effectively perform the required management functions.

#### **APPENDIX 1 TO 12.073: MINIMUM ENTRY QUALIFICATIONS FOR THE QUALITY ASSURANCE POSTHOLDER<sup>116</sup>**

- (a) At least 3 years experience in aircraft flight operations quality assurance or aircraft maintenance quality assurance;
- (b) Complete an internal auditor training and have lead auditor certificate and have at least one year experience as a lead auditor.

<sup>115</sup> This content is revised according to Item 53, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>116</sup> This content is revised according to Item 53, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

**APPENDIX 1 TO 12.075: REPORT CONTENTS OF THE FLEET TEAM MANAGEMENT**

- (a) The contents of the monthly report of the aircraft operator on the fleet team as issued AOC include:
  - (1) Total actual operating hours of each aircraft.
  - (2) The total number of planned maintenance task (Scheduled) and the total number of actual days of aircraft on ground to perform maintenance tasks on each aircraft that is on operation.
  - (3) The total number of unplanned maintenance task (Unscheduled) and the total number of actual days of aircraft on ground to perform maintenance tasks on each aircraft that is on operation.
  - (4) The total times and total days the aircraft is AOG for technical reasons on each aircraft
  - (5) Number of concessions extended maintenance period (Variation) applies to each aircraft that is in operation and equipment installed on that aircraft.
- (b) Monthly report must be made before the 05th day of the following month.

**APPENDIX 1 TO 12.081: SUMMARY OF RECORD RETENTION REQUIREMENTS<sup>117</sup>**

An operator shall ensure that the following information or documentation is retained for the periods shown in the tables below.

- (a) Flight crew records:

Flight, duty and rest time	2 years
License and medical certificate	Until 12 months after the flight crew member has left the employ of the operator
Ground and flight training (all types)	Until 12 months after the flight crew member has left the employ of the operator
Route and airport/heliport qualification training	Until 12 months after the flight crew member has left the employ of the operator
Dangerous good training	Until 12 months after the flight crew member has left the employ of the operator
Security training	Until 12 months after the flight crew member has left the employ of the operator
Proficiency and qualification checks (all types)	Until 12 months after the flight crew member has left the employ of the operator

- (b) Cabin crew records:

Flight, duty and rest time	2 years
License, if applicable	Until 12 months after the cabin crew member has left the employ of the

<sup>117</sup> This content is revised according to Item 54, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

	operator
Ground and flight training (all types) and qualification checks	Until 12 months after the cabin crew member has left the employ of the operator
Dangerous good training	Until 12 months after the cabin crew member has left the employ of the operator
Security training	Until 12 months after the cabin crew member has left the employ of the operator
Competency checks	Until 12 months after the cabin crew member has left the employ of the operator

(c) Records for other AOC Personnel

Training/qualification of other personnel for whom an approved training programme is required in these regulations	Until 12 months after the employee has left the employ of the operator
License, if required, and medical certificate if required	Until 12 months after the employee has left the employ of the operator
Proficiency or competency checks, if required	Until 12 months after the employee has left the employ of the operator

(d) Forms related to Flight Preparation

Completed load manifest	3 months after the completion of the flight
Mass and balance reports	3 months after the completion of the flight
Dispatch releases	3 months after the completion of the flight
Flight plans (ATS)	3 months after the completion of the flight
Operational flight plan	3 months after the completion of the flight
Passenger manifests	3 months after the completion of the flight
Weather reports	3 months after the completion of the flight

(e) Flight Recorder Records:

Cockpit voice recordings	Preserved after an accident or incident for 60 days or longer if requested by the CAAV
Flight data recordings	Preserved after an accident or incident for 60 days or longer if requested by the CAAV

(g) Aircraft Technical Logbook:<sup>118</sup>

Journey records section	12 months
Maintenance records section	12 months

<sup>118</sup> This content is revised according to Item 6, Appendix VIII to Circular 56/2018/TT-BGTVT dated 30 Jan 2019.



(h) Maintenance Records of the Aircraft

Total time in service (hours, calendar time and cycles, as appropriate) of the aircraft and all life-limited components	3 months after the unit to which they refer has been permanently withdrawn from service
Current status of compliance with all mandatory continuing airworthiness information	3 months after the unit to which they refer has been permanently withdrawn from service
Appropriate details of modifications and repairs to the aircraft and its components	3 months after the unit to which they refer has been permanently withdrawn from service
Total time in service (hours, calendar time and cycles, as appropriate) since the last overhaul of the aircraft or its components subject to a mandatory overhaul life	3 months after the unit to which they refer has been permanently withdrawn from service
The detailed maintenance records to show all requirements for a maintenance release have been met	1 year after signing of the maintenance release

(i) Other Records

Quality assurance records	5 years
Dangerous goods transport document	6 months after the completion of the flight
Dangerous goods acceptance checklist	6 months after the completion of the flight
Records on cosmic and solar radiation dosage, if AOC holder operates aircraft that fly above 15,000 m (49,000 ft)	Until 12 months after the crew member has left the employ of the AOC holder

**APPENDIX 1 TO 12.103: CONTENTS OF AN AOC JOURNEY LOG<sup>119</sup>**

- (a) Unless otherwise authorized by the CAAV, the AOC shall use a journey log which includes the following information:
- (1) The operator's name;
  - (2) Aircraft nationality and registration;
  - (3) Names of crew members;
  - (4) Duty assignments of crew members;
  - (5) Signature of pilot-in-command;
  - (6) Nature of flight, (general aviation, aerial work, scheduled or unscheduled commercial air transport);
  - (7) Date of flight;
  - (8) Departure point;
  - (9) Arrival point;
  - (10) Out-of-chocks time of departure;
  - (11) In-to-chocks time of arrival;
  - (12) Total hours of flight time;
  - (13) Trip events, incidents and observations.

<sup>119</sup> This content is revised according to Item 55, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (b) The AOC holder should use the roman characters with the form labels to clarify the content of information provided.
- (c) The Journey Log may be combined with the Aircraft Technical Log where approved by the CAAV

**APPENDIX 2 TO 12.103: CONTENTS OF THE AIRCRAFT TECHNICAL LOG<sup>120</sup>**

- (a) Unless otherwise authorized by the CAAV, the AOC holder shall use an aircraft technical log which includes an aircraft maintenance record section containing the following information for each aircraft:
  - (1) The AOC holder's company name;
  - (2) A unique page numbering system;
  - (3) Left margin date entry column; preceding items (4) through (6) in a row format;
  - (4) Airport entry column including the departure and arrival airport on the same row;
  - (5) An In-service time per leg column, including takeoff and landing times on the same row,
  - (6) <sup>121</sup>Fuel and oil uplift column, including, on the same row, the amount for:
    - (i) Fuel and oil;
    - (ii) Takeoff total.
  - (7) Method for entering defects found during flight in a column and row format, including
    - (i) A method for numbering each defect
    - (ii) Identifying the airport where it was entered;
    - (iii) A description of the defect noted;
    - (iv) A description of the correction or deferment of the defect;
    - (v) The certificate number of the person making the correction; and
    - (vi) The signature or 3 letter initials of the person making the correction;
  - (8) A method for collecting the critical summary information, such as airframe hours, landing gear cycles, etc.
  - (9) A method for collecting any special inspection or maintenance status information that is applicable to the AOC holder's operations, such as VOR receiver checks, ETOPS status, etc.
  - (10) A separate provision for the current release to service, including:
    - (i) The proper terminology for the release;
    - (ii) The name and signature for the release.
  - (11) A separate provision for the pilot's flight preparation certification that the document illustrates that the aircraft is airworthy, has the required operational equipment and proper release to service.
  - (12) A provision for tracking the deferred defects, which may be included as a separate page or pages in the front or back of the technical log.
- (b) The operator may combine the prescribed contents of the journey log and the aircraft technical log.

**APPENDIX 1 TO 12.113 WEIGHT AND BALANCE DOCUMENT**

- (a) The operator must complete weight and balance documentation prior to each flight to sort and distribute goods. Weight and balance documentation must create the ability to allow the aircraft commander to determine the load rate and distribution of goods does not exceed the limit on mass and balance of the aircraft. The focus and load calculation personnel must sign this

<sup>120</sup> This content is revised according to Item 55, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

<sup>121</sup> This content is revised according to Item 11, Appendix IX to Circular 21/2017/TT-BGTVT dated 30 June 2017.

document. Supervision personnel the aircraft loading to sign to ensure that the goods have been arranged with regulations of the mass and balance documents. This document must be approved by the aircraft commander. Approval is represented by the signature or other equivalent methods.

- (b) The operator must specify the method for changing the load rating at the last minute.
- (c) Upon approval of the CAAV, operator can apply preventive methods for the method described in paragraph (a) and (b) above:
- (d) The weight and balance documentation must include the following:
  - (2) Aircraft type and registration;
  - (3) Name, flight number and date;
  - (4) Name of pilot in command;
  - (5) Name of documentation prepared;
  - (6) Empty operation mass and aircraft corresponding focal point.
  - (7) Weight of fuel during takeoff and during long-distance flights.
  - (8) Liquid weight other than fuel consumption
  - (9) Weight of passengers, baggage, cargo load and weight of focus plane adjustment;
  - (10) Takeoff weight, landing weight and fuel weight without fuel.
  - (11) Weight distribution;
  - (12) Aircraft's focal point;
  - (13) Weight limit and core values.
- (e) Upon the approval of the CAAV, operator can take out some data in the weight and balance documentation.
- (f) Change at the last minute: if there is any change at the last minute, after the weight and balance document has finished, aircraft commander must pay attention to these change aspect to add to the document. The maximum allowed change in the number of passengers or the whole load when there is a last minute change must be specified in the operational manual. If this number exceeds the regulations, must establish new weight and balance documentation.
- (g) Calculation system: weight and balance system is built up by computer; operator must define the output data, operator must develop a system to test the system input data and the precise operation of the system by the continuous periodic inspection data output of not more than 6 months.
- (h) The weight and balance system on the aeroplane: The operator must apply for approval from the CAAV if it wants to use a computer system on the aircraft to determine aircraft weight and balance system as the main operating system in the aircraft operation.
- (i) Data transmission: weight and balance documents are transmitted to the aircraft by data line, a record of the weight and balance documents finally approved by the aircraft commander must be available on the ground.

#### **APPENDIX 1 TO 12.115 AIRCRAFT OPERATIONAL PLANNING**

- (a) Operator must ensure that flight plans and the information recorded in the flight plan during flight must contain the following:
  - (1) The registration of aircraft;
  - (2) Type and class of aircraft;
  - (3) Date, month, year of the flight;
  - (4) Flight number;
  - (5) Full name of flight crew members;
  - (6) Duty of each flight crew member;
  - (7) Departure aerodrome;
  - (8) Departure time;
  - (9) Arrival aerodrome (scheduled and actual);
  - (10) Arrival time;

- (11) Operation type (ETOPS, VFR, ferry flight ...);
  - (12) Route, the flight and the check point / route points, distances, time and tracks aircraft.
  - (13) Estimated flight speed and flight time between checkpoints / route, estimated time and actual time;
  - (14) The safe altitude and the minimum flight level
  - (15) Altitude/ flight level scheduled;
  - (16) Fuel calculation (the record of in-flight fuel checks);
  - (17) The amount of fuel on board at the time of the engine starts.
  - (18) The alternative airport for landing, and if possible, alternative airport for takeoff and en route, including the information specified in the above points (12), (13),(14) and (15);
  - (19) Flight plan with of ATS air traffic services and additional plans;
  - (20) To amend the flight plan en route.
  - (21) The relevant meteorological information;
- (f) The appendices mentioned in the manual or obtained from other sources, the information is not relevant to this type of operation can be discarded in the flight plan.
  - (g) The operator must ensure that flight plans and the use of a flight plan to be specified in the operational manual.
  - (h) The operator must ensure full and accurate contents in the flight plan.

#### **APPENDIX 1 TO 12.153: OPERATIONS MANUAL<sup>122</sup>**

- (a) The AOC holder shall ensure that the contents and structure of the operations manual are in accordance with rules and regulations of the CAAV, and is relevant to the area(s) and type(s) of operation.
- (b) An AOC holder may design a manual to be more restrictive than the CAAV's requirements.
- (c) The AOC holder shall ensure that the operations manual presents the items of information listed below, to meet the prescribed requirements. The manual may consist of two or more parts containing together all such information in a format and manner based upon the outline presented in paragraph (d) below. Each part of the operations manual must contain all information required by each group of personnel addressed in that part.
- (d) An operations manual, which may be issued in separate parts corresponding to specific aspects of operations and should be organized with the following recommended structure:
  - (1) General;
  - (2) Aircraft operating information;
  - (3) Routes and aerodromes; and
  - (4) Training.

#### **A. General to include:**

- (1) Instructions outlining the responsibilities of operations personnel pertaining to the conduct of flight operations.
- (2) Information and policy relating to fatigue management including:
  - (i) Rules pertaining to flight time, flight duty period, duty period limitations and rest requirements for flight and cabin crew members; and
  - (ii) Policy and documentation pertaining to the operator's FRMS.
- (3) A list of the navigational equipment to be carried including any requirements relating to operations where performance-based navigation is prescribed
- (4) Where relevant to the operations, the long-range navigation procedures, engine failure procedure for ETDO and the nomination and utilization of diversion aerodromes..

<sup>122</sup> This content is revised according to Item 56, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (5) The circumstances in which a radio listening watch is to be maintained.
- (6) The method for determining minimum flight altitudes.
- (7) The methods for determining aerodrome operating minima.
- (8) Safety precautions during refuelling with passengers on board.
- (9) Ground handling arrangements and procedures.
- (10) Procedures for incident, accident report as prescribed in Part 19 for pilots-in-command observing an accident.
- (11) The flight crew for each type of operation including the designation of the succession of command.
- (12) Specific instructions for the computation of the quantities of fuel and oil to be carried, having regard to all circumstances of the operation including the possibility of the failure of one or more powerplants while en route.
- (13) The conditions under which oxygen shall be used and the amount of oxygen determined to be carried in accordance with Part 6.
- (14) Instructions for mass and balance control.
- (15) Instructions for the conduct and control of ground de-icing/anti-icing operations.
- (16) The specifications for the operational flight plan.
- (17) Standard operating procedures (SOP) for each phase of flight.
- (18) Instructions on the use of normal checklists and the timing of their use.
- (19) Departure contingency procedures.
- (20) Instructions on the maintenance of altitude awareness and the use of automated or flight crew altitude call-out.
- (21) Instructions on the use of auto pilots and auto-throttles in IMC.
- (22) Instructions on the clarification and acceptance of ATC clearances, particularly where terrain clearance is involved.
- (23) Departure and approach briefings.
- (24) Procedures for familiarization with areas, routes and aerodromes.
- (25) Stabilized approach procedure.
- (26) Limitation on high rates of descent near the surface.
- (27) Conditions required to commence or to continue an instrument approach.
- (28) Instructions for the conduct of precision and non-precision instrument approach procedures.
- (29) Allocation of flight crew duties and procedures for the management of crew workload during night and IMC instrument approach and landing operations.
- (30) Instructions and training requirements for the avoidance of controlled flight into terrain and policy for the use of the ground proximity warning system (GPWS).
- (31) Policy, instructions, procedures and training requirements for the avoidance of collisions and the use of the airborne collision avoidance system (ACAS).
- (32) Information and instructions relating to the interception of civil aircraft including:
  - (i) Procedures, as prescribed in Part 10, for pilots-in-command of intercepted aircraft; and
  - (ii) Visual signals for use by intercepting and intercepted aircraft, as contained in Part 10.
- (33) For aeroplanes intended to be operated above 15 000 m (49 000 ft):
  - (i) Information which will enable the pilot to determine the best course of action to take in the event of exposure to solar cosmic radiation; and

- (ii) Procedures in the event that a decision to descend is taken, covering:
  - (A) The necessity of giving the appropriate air tower service unit prior warning of the situation and of obtaining a provisional descent clearance; and
  - (B) The action to be taken in the event that communication with the air tower service unit cannot be established or is interrupted.

- (34) Details of the Safety Management System [SMS].
- (35) Information and instructions on the carriage of dangerous goods, in accordance with this Part and Part 18, including action to be taken in the event of an emergency.
- (36) Security instructions and guidance.
- (37) The bomb search procedure checklist.
- (38) Instructions and training requirements for the use of head-up displays (HUD) and enhanced vision systems (EVS)
- (39) The acceptable level of aerodrome RFFS protection for each aircraft fleet and type of operation.
- (40) Procedures, to avoid unnecessary airborne collision avoidance system (ACAS II) resolution advisories in aircraft at or approaching adjacent altitudes or flight levels, operators should specify procedures by which an aircraft climbing or descending to an assigned altitude or flight level, especially with an autopilot engaged, may do so at a rate less than 8 m/sec or 1 500 ft/min (depending on the instrumentation available) throughout the last 300 m (1 000 ft) of climb or descent to the assigned level when the pilot is made aware of another aircraft at or approaching an adjacent altitude or flight level.
- (41) Instructions and training requirements for the use of the EFB, as applicable .

**B. Aircraft operating information to include:**

- (1) Certification limitations and operating limitations.
- (2) The normal, abnormal and emergency procedures to be used by the flight crew and the checklists relating thereto.
- (3) Operating instructions and information on climb performance with all engines operating.
- (4) Flight planning data for pre-flight and in-flight planning with different thrust/power and speed settings.
- (5) Maximum crosswind and tailwind components for each aeroplane type operated and the reductions to be applied to these values having regard to gust, low visibility, runway surface conditions, crew experience, use of autopilot;
- (6) Instructions and data for mass and balance calculations.
- (7) Instructions for aircraft loading and securing of load.
- (8) Aircraft systems, associated controls and instructions for their use.
- (9) The minimum equipment list and configuration deviation list for the aeroplane types operated and specific operations authorized, including any requirements relating to operations in RVSM and RNP airspace.
- (10) Checklist of emergency and safety equipment and instructions for its use.
- (11) Emergency evacuation procedures, including type-specific procedures, crew coordination, assignment of crew's emergency positions and the emergency duties assigned to each crew member.
- (12) The normal, abnormal and emergency procedures to be used by the cabin crew, the checklists relating thereto and aircraft systems information as required, including a statement related to the necessary procedures for the coordination between flight and cabin crew.
- (13) Survival and emergency equipment for different routes and the necessary procedures to verify its normal functioning before take-off, including procedures to determine the required amount of oxygen and the quantity available.

- (14) The ground-air visual signal code for use by survivors.

**C. Routes and Aerodromes to include:**

- (1) A route guide to ensure that the flight crew will have, for each flight, information relating to communication facilities, navigation aids, aerodromes, instrument approaches, instrument arrivals and instrument departures as applicable for the operation, and such other information as the operator may deem necessary for the proper conduct of flight operations.
- (2) The minimum flight altitudes for each route to be flown.
- (3) Aerodrome operating minima for each of the aerodromes that are likely to be used as aerodromes of intended landing or as alternate aerodromes.
- (4) The increase of aerodrome operating minima in case of degradation of approach or aerodrome facilities.
- (5) The necessary information for compliance with all flight profiles required by regulations, including but not limited to, the determination of:
  - (i) Take-off runway length requirements for dry, wet and contaminated conditions, including those dictated by system failures which affect the take-off distance;
  - (ii) Take-off climb limitations;
  - (iii) En-route climb limitations;
  - (iv) Approach climb limitations and landing climb limitations;
  - (v) Landing runway length requirements for dry, wet and contaminated conditions, including systems failures which affect the landing distance; and
  - (vi) Supplementary information, such as tire speed limitations.
- (6) The level of RFFS protection that is available at each aerodrome.

**D. Training must include the following:**

- (1) Details of the flight crew training programme.
- (2) Details of the cabin crew duties training programme.
- (3) Details of the flight operations officer/flight dispatcher training programme.

**APPENDIX 2 TO 12.153 REGULATION PROCEDURES, APPROVING PROCEDURES FOR AMENDMENTS AND SUPPLEMENTS OPERATOR OPERATIONAL MANUAL.**

- (a) When there are changes in operational manual, the operator must apply procedural amendments, supplements 20 days prior the planned date documents to be applied. Application for approval of amendments, supplements to the operational manual include :
  - (1) A request for amendment and supplement to the operational manual with a summary of the amendments contents compared to previously approved documents.
  - (2) Documents relating to the amendment and supplement contents of the operational manual that original has been approved with AOC.
- (b) The applicant for amendment, supplement of the operational manual to send 01 dossier directly to the CAAV or via mail.
- (c) The CAAV to check the validity of the dossiers within 3 working days from the date of receiving of application; notify in person or in writing to the applicant if the application is denied.
- (d) If the application is accepted, within 7 working days from the date of receipt, the CAAV to consider the contents of the application, agreement, and formal notification for inspection plan at the applicant's facility.



- (e) <sup>123</sup> Within 5 days from the date of receipt, the CAAV to approve the amendments, additional operational manual if it finds that the amendments meet the provisions of this section, or notify of refusal in writing and state the reasons for applicant.

#### **APPENDIX 1 TO 12.170: MINIMUM EQUIPMENT LISTS**

- (a) If deviations from the requirements of States in the certification of aircraft were not permitted an aircraft could not be flown unless all systems and equipment were operable. Experience has proved that some unserviceability can be accepted in the short term when the remaining operative systems and equipment provide for continued safe operations.
- (b) The CAAV will approve a minimum equipment list (MEL) for an AOC holder indicating those systems and items of equipment that may be inoperative for certain flight conditions with the intent that no flight can be conducted with inoperative systems and equipment other than those specified.
- (c) A minimum equipment list is based on the master minimum equipment list established for the aircraft type by the organization responsible for the type design in conjunction with the State of Design. A minimum equipment list must be more strict than the master minimum equipment list.
- (d) The AOC holder must, during certification, prepare a minimum equipment list designed to allow the operation of an aircraft with certain systems or equipment inoperative provided an acceptable level of safety is maintained.
- (e) The minimum equipment list is not intended to provide for operation of the aircraft for an indefinite period with inoperative systems or equipment. The basic purpose of the minimum equipment list is to permit the safe operation of an aircraft with inoperative systems or equipment within the framework of a controlled and sound programme of repairs and parts replacement.
- (f) The AOC holder must ensure that no flight is commenced with multiple minimum equipment list items inoperative without determining that any interrelationship between inoperative systems or components will not result in an unacceptable degradation in the level of safety and/or undue increase in the flight crew workload.
- (g) The exposure to additional failures during continued operation with inoperative systems or equipment must also be considered in determining that an acceptable level of safety is being maintained. The minimum equipment list may not deviate from requirements of the flight manual limitations section, emergency procedures or other airworthiness requirements of the State of Registry or of the State of the Operator unless the appropriate airworthiness authority or the flight manual provides otherwise.
- (h) Systems or equipment accepted as inoperative for a flight should be placarded where appropriate and all such items should be noted in the aircraft technical log to inform the flight crew and maintenance personnel of the inoperative system or equipment.
- (i) Based on manufacturer's MMEL, for a particular system or item of equipment to be accepted as inoperative, it may be necessary to establish a maintenance procedure, for completion prior to flight, to de-activate or isolate the system or equipment. It may similarly be necessary to prepare an appropriate flight crew operating procedure.

#### **APPENDIX 1 TO 12.185: PASSENGER BRIEFING CARDS**

- (a) The AOC holder shall, at each exit seat, provide passenger information cards that include the following information in the primary language in which emergency commands are given by the crew:
  - (1) Functions required of a passenger in the event of an emergency in which a crew member is not available to assist:
    - (i) Locate the emergency exit;
    - (ii) Recognise the emergency exit opening mechanism;;
    - (iii) Comprehend the instructions for operating the emergency exit;

<sup>123</sup> This content is revised according to Item 7, Appendix VIII to Circular 56/2018/TT-BGTVT dated 30 Jan 2019.

- (iv) Operate the emergency exit;
  - (v) Assess whether opening the emergency exit will increase the hazards to which passengers may be exposed;
  - (vi) Follow oral directions and hand signals given by a crew member;
  - (vii) Stow or secure the emergency exit door so that it will not impede use of the exit;
  - (viii) Assess the condition of an escape slide, activate the slide, and stabilise the slide after deployment to assist others in getting off the slide;
  - (ix) Pass expeditiously through the emergency exit; and
  - (x) Assess, select, and follow a safe path away from the emergency exit.
- (2) A request that a passenger identify himself or herself to allow re-seating if he or she:
- (i) Cannot perform the emergency functions stated in the information card;
  - (ii) Has a condition that will prevent him or her from performing the functions;
  - (iii) May suffer bodily harm as the result of performing one or more of those functions; or
  - (iv) Does not wish to perform those functions;
  - (v) Lacks the ability to read, speak, or understand the language or the graphic form in which instructions are provided by the AOC holder.

#### **APPENDIX 1 TO 12.187: AERONAUTICAL DATA CONTROL SYSTEM**

- (a) The AOC holder shall provide aeronautical data for each aerodrome used by the AOC holder which includes the following:
- (1) aerodromes:
    - (i) Facilities;
    - (ii) Navigational and communications aids;
    - (iii) Construction affecting takeoff, landing, or ground operations;
    - (iv) Air traffic facilities.
  - (2) Runways, clearways, and stopways:
    - (i) Dimensions;
    - (ii) Surface;
    - (iii) Marking and lighting systems;
    - (iv) Elevation (sea level) and gradient.
  - (3) Displaced thresholds runway:
    - (i) Location;
    - (ii) Dimensions;
    - (iii) Takeoff or landing or both.
  - (4) Obstacles:
    - (i) Those affecting takeoff and landing performance computations;
    - (ii) Controlling obstacles;
    - (iii) Instrument flight procedures;
    - (iv) Departure procedure;
    - (v) Approach procedure;
    - (vi) Missed approach procedure.
  - (5) Special information:
    - (i) Runway visual range measurement equipment;

- (ii) Prevailing winds under low visibility conditions.

#### **APPENDIX 1 TO 12.193: WEATHER REPORTING SOURCES**

- (a) The Authority approves and considers the following sources of weather reports satisfactory for flight planning or controlling flight movement:
  - (1) Vietnam State Meteorological office;
  - (2) Vietnam-operated automated surface observation stations;  
*Note: Some automated systems cannot report all required items for a complete surface aviation weather report.*
  - (3) Vietnam-operated supplemental aviation weather reporting stations;
  - (4) Observations taken by aerodrome traffic control towers;
  - (5) Vietnam-contracted weather observatories;
  - (6) Any active meteorological office operated by a foreign state which subscribes to the standards and practices of ICAO conventions;  
*Note: These meteorological offices are normally listed in the MET tables located in ICAO Regional Air Navigation Plans.*
  - (7) Any military weather reporting sources acceptable to the CAAV;  
*Note: Use of military sources is limited to control of those flight operations which use military aerodromes as departure, destination, alternate, or diversionary aerodromes.*
  - (8) Near real time reports such as pilot reports, radar reports, radar summary charts, and satellite imagery reports made by commercial weather sources or other sources acceptable to the CAAV;
  - (9) An AOC holder operated and maintained weather reporting system approved by the CAAV.

#### **APPENDIX 1 TO 12.195: DE-ICING AND ANTI-ICING PROGRAMME**

- (a) Contents of the AOC holder's ground de-icing and anti-icing programme shall include a detailed description of:
  - (1) To determine that conditions are such that frost, ice, or snow may reasonably be expected to adhere to the aircraft and effect procedures for ground de-icing and anti-icing.
  - (2) Who is responsible for deciding that ground de-icing and anti-icing operational procedures shall be in effect;
  - (3) The procedures for implementing ground de-icing and anti-icing; and
  - (4) The specific duties and responsibilities of each operational position or group responsible for getting the aircraft safely airborne while ground de-icing and anti-icing operational procedures are in effect.
- (b) The AOC holder's programme shall include procedures for flight crew members to increase or decrease the determined holdover time in changing conditions. The holdover time shall be supported by data acceptable to the Authority. If the maximum holdover time is exceeded, takeoff is prohibited unless at least one of the following conditions exists:
  - (1) A pre-takeoff contamination check is conducted outside the aircraft (within five minutes prior to beginning take off) to determine that the wings, control surfaces, and other critical surfaces, as defined in the certificate holder's programme, are free of frost, ice, or snow;
  - (2) It is otherwise determined by an alternate procedure, approved by the CAAV and in accordance with the AOC holder's approved programme, that the wings, control surfaces, and other critical surfaces are free of frost, ice, or snow; or
  - (3) The wings, control surfaces, and other critical surfaces are de-iced again and a new holdover time is determined.

## APPENDIX 1 TO 12.227: CONTENTS OF THE MAINTENANCE CONTROL MANUAL<sup>124</sup>

- (a) The AOC holder's maintenance control manual shall contain the following information which may be issued in separate parts.
- (1) A description of the required maintenance procedures, including:
    - (i) A description of the administrative arrangements between the AOC holder and the approved maintenance organization;
    - (ii) A description of the maintenance procedures and the procedures for completing and signing a maintenance release when maintenance is based on a system other than that of an approved maintenance organization..
    - (iii) Procedures and materials for the implementation and certify completion regular check of aircraft (CRS-SMI), certificates of maintenance review (CMR) and certification release to service (CRS).
  - (2) The names and duties of the person or persons required to ensure that all maintenance is carrier out in accordance with the maintenance control manual;
  - (3) A reference to the required maintenance programme;
  - (4) A description of the methods for completion and retention of the required AOC holder's maintenance records;
  - (5) A description of establishing and maintaining a system of analysis and continued monitoring of the performance and efficiency of the maintenance programme, in order to correct any deficiency in that programme.
  - (6) A description of the procedures for obtaining and assessing continued airworthiness information and implementing any resulting actions for all aeroplanes over 5,700 kg and helicopters over 3,175 kg maximum certificated take-off mass, from the organisation responsible for the type design, and shall implement such actions considered necessary by the State of Registry;
  - (7) A description of procedures for assessing continuing airworthiness information and implementing any resulting actions;
  - (8) A description of the procedures for implementing action resulting from mandatory continuing airworthiness information;
  - (9) A description of the procedures for monitoring, assessing and reporting maintenance and operational experience all aeroplanes over 5,700 kg and helicopters over 3,175 kg maximum certificated take-off mass;
  - (10) A description of aircraft types and models to which the manual applies;
  - (11) A description of procedures for ensuring that unserviceabilities affecting airworthiness are recorded and rectified;
  - (12) A description of the procedures for advising the State of Registry of significant in-service occurrences, including failures, malfunctions and defects as required by Section 4.047.
  - (13) A description of the procedures to ensure each aeroplane they operate is in an airworthy condition;
  - (14) A description of the procedures to ensure the operational emergency equipment for each flight is serviceable;
  - (15) A description of the procedures for the introduction of new aircraft to the fleet;
  - (16) A description of the procedures for assessment of contractor capabilities for in door and out door maintenance service, and including de-icing.
  - (17) A description of the procedures for control and approval of major repairs and alterations;
  - (18) The certificate holder's manual must contain the required programmes that must be followed in performing maintenance, preventive maintenance, and alterations of the AOC holder's aircraft, including airframes, aircraft engines, propellers, rotors, appliances, emergency equipment and parts thereof, and must include at least the following:

<sup>124</sup> This content is revised according to Item 57, Appendix X to Circular 03/2016/TT-BGTVT dated 31 March 2016.

- (i) The method of performing routine and nonroutine maintenance (other than required inspections, preventive maintenance, and alterations);
- (ii) A designation of the items of maintenance and alterations that must be inspected (required inspections), including at least those that could result in a failure, malfunction, or defect endangering the safe operations of the aircraft, if not performed properly or if improper parts or materials are used;
- (iii) The method of performing required inspections and a designation by occupational title or personnel authorized to perform each required inspection;
- (iv) Procedures for the re-inspection of work performed pursuant to previous required inspections findings procedures;
- (v) Procedures, standards and limits necessary for required inspections and acceptance or rejections of the items required to be inspected and for periodic inspection and calibration of precision tools, measuring devices and test equipment;
- (vi) Instruction to prevent any person who performs any item of work from performing any required inspection of that work;
- (vii) Instructions and procedures to prevent countermanded by persons other than supervisory personnel of the inspection unit, or a person at that level of administrative control that has overall responsibility for the management of both the required inspection functions and the other maintenance, preventive maintenance and alteration functions;
- (viii) Procedures to ensure that required inspection, other maintenance, preventive maintenance and alterations that are not completed as a result of shift changes or similar work interruptions are properly completed before the aircraft is released to service;
- (ix) A description of the procedures for preparing the release to service and the circumstances under which the release is to be signed;
- (x) A list of personnel authorized to sign the release to service and the scope of their authorisation.

*Note: The manual may be developed in any subject order and subjects combined so long as all applicable subjects are covered in this manual.*

#### **APPENDIX 1 TO 12.235: AOC HOLDER'S ADDITIONAL QUALITY SYSTEM FOR MAINTENANCE**

- (a) Each AOC shall establish a plan acceptable to the CAAV to show when and how often the activities are required will be monitored. In addition, reports should be produced at the completion of each monitoring investigation and include details of discrepancies of non-compliance with procedures or requirements.
- (b) The feedback part of the system shall address who is required to rectify discrepancies and non-compliance in each particular case and the procedure to be followed if rectification is not completed within appropriate time scales.
- (c) To ensure effective compliance The AOC holder and AOC applicant should use the following elements:
  - (1) Product sampling - the part inspection of a representative sample of the aircraft fleet;
  - (2) Defect sampling - the monitoring of defect rectification performance;
  - (3) Concession sampling - the monitoring of any concession to not carry out maintenance on time;
  - (4) On time maintenance sampling - the monitoring of when (flying hours/calendar time/flight cycles, etc.) aircraft and their components are brought in for maintenance;
  - (5) Sample reports of unairworthy conditions and maintenance errors on aircraft and components.

*Note: The primary purpose of the Quality System for maintenance is to monitor compliance with the approved procedures specified in an operators maintenance control manual to ensure compliance and thereby ensure the maintenance aspects of the operational safety of the aircraft.*

*In particular, this part of the Quality System provides a monitor of the effectiveness of maintenance, and should include a feedback system to ensure that corrective actions are identified and carried out in a timely manner.*